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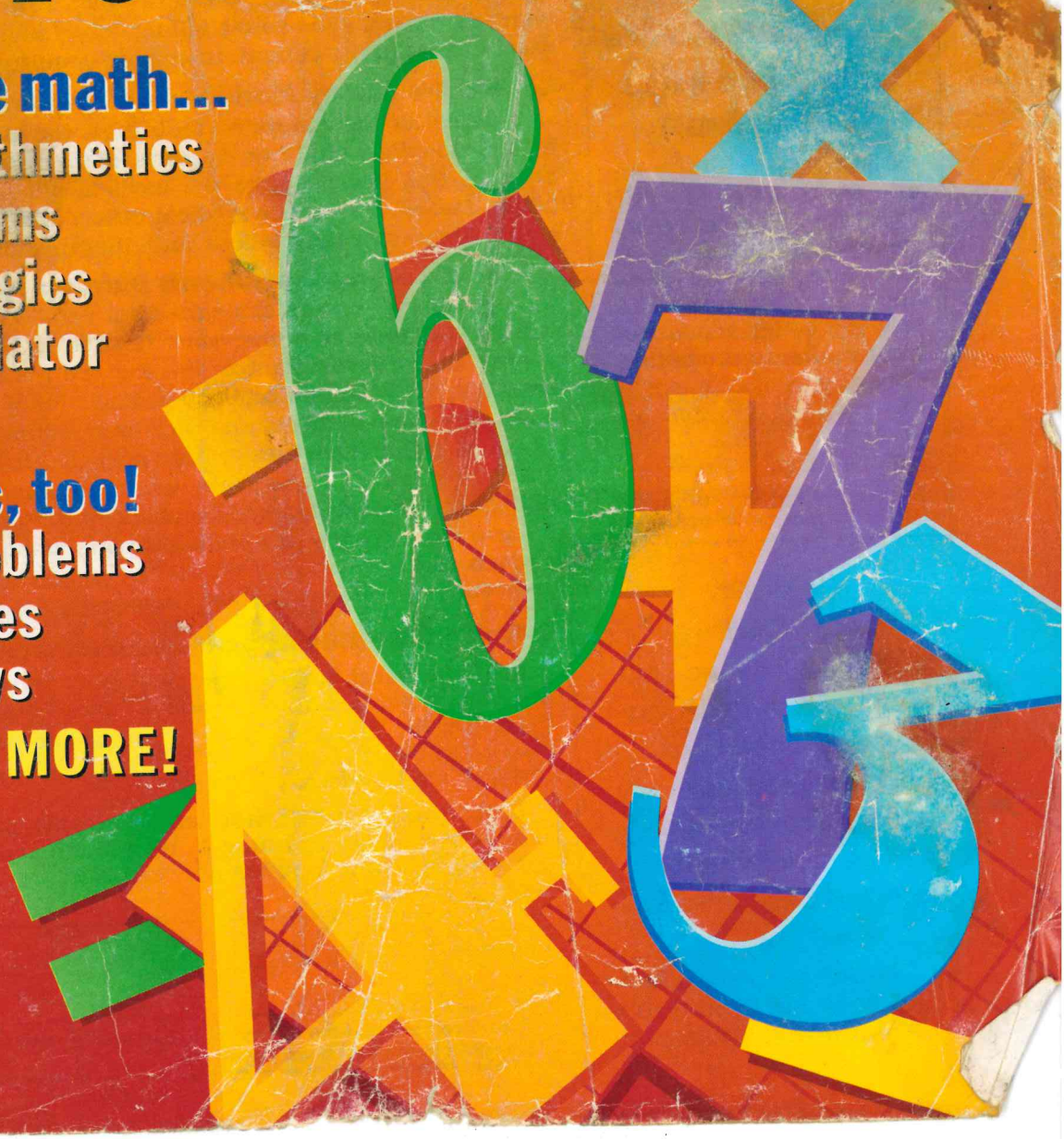

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May 1999

Math Puzzles AND Logic Problems

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Add It Up! 29
All in a Row 5
Bingo Plays 1 & 2 33
Bonus Word Arithmetic! 54
Crazy Calculator 34
Cross Figure 22
Crossmath 52
Cross Sums 1–20 ..... 8, 9, 18, 19, 28, 29, 38, 39, 48, 49
Cryptic Math 44
Family Style 13
Figure Logics 1–10 ..... 11, 16, 24, 31, 36, 37, 43, 55, 57
In the Balance 6
Kross Number Kriss Krosses 1 & 2 15
Logic Problems 1–15 ..... 7, 12, 14, 17, 21, 25, 26, 32, 41, 42, 45, 47, 51, 53, 56
Mathematical Deduction 44
Math Mazes 1 & 2 46
Number Place 1–3 33
P.D.Q. 37
Route 13 5
Secret Squares 43
These Are the Days 13
Totally! 6
What's Your Number? 24
Word Arithmetics 1–45 ..... 10, 20, 30, 40, 50

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On-sale dates for Dell puzzle magazines are on page 58.

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40 FACTS FROM THE EDITORS

1. This is the 40th issue of *Dell Math Puzzles and Logic Problems*!
2. With that milestone in mind, we editors decided to present the 40 facts on this page.
3. Naturally, since we have 40 on our minds, the number dominates many of the facts.
4. For instance, one of the artists here at Dell Puzzle Magazines turned 40 in January.
5. And two of our editors reached that age at just about the same time.
6. But one of them wasn't too happy about it!
7. In any event, there are a lot more than 40 great puzzles in this magazine.
8. To wit, you'll find 40 + 9 (that's 49) Word Arithmetics here.
9. Some of them are actually found on page 40!
10. And 40 ÷ 10 (that's 4) of the 49 are very special Bonus Word Arithmetics.
11. In addition, the issue contains one-half of 40 (that's 20) Cross Sums.
12. For a few of those puzzles, you'll have to calculate a sum of 40.
13. This magazine has 40 ÷ 4 (that's 10) terrific Figure Logics as well.
14. Two of them are on the page numbered 40% of 40 (that's 16).
15. Another Figure Logic is so big, we had to spread it over 40 ÷ 20 (that's 2) pages!
16. If you like Logic Problems, you'll go nuts over the 40 – 25 (that's 15) we've included.
17. That's enough L.P. solving to last a whole 40 days and 40 nights!
18. 110% of 40 (that's 44) is the clue for 40-Across in this issue's challenging Crossmath.
19. Sadly, though, none of its clues mentions 40 at all.
20. There are 40 – 38 (that's 2) Bingo Plays for your enjoyment, too.
21. Incidentally, 40 often shows up in the N column in Bingo Plays.
22. However, we ain't saying whether 40 appears in either of these puzzles!
23. That would be too much help!
24. This mag's Crazy Calculator asks you to use 40 ÷ 10 (that's 4) arithmetic operations.
25. Harry Archer, Crazy Calculator's ace constructor, is 2 times 40 (that's 80) years old!
26. Other Top-40 puzzle hits here are Secret Squares, Number Place, and Cryptic Math.
27. And Family Style, Totally!, and P.D.Q. are for those solvers looking for 40-carat one-shots.
28. Life may begin at 40, but this issue begins with 13, as Route 13 is its first puzzle!
29. We bet you'll spend more than 40 minutes on the second Kross Number Kriss Kross.
30. At the time, it was the most difficult Kross Number in our file of 40.
31. Mathematical Deduction, a puzzle that has almost 40 letters in its name, is a blast.
32. What's Your Number? is another cute little poser this time around.
33. Yet if you asked us what OUR number is, there would be no doubt that it's 40!
34. Seriously, folks, we would absolutely LOVE to read your 40 comments about this issue.
35. You should write to us, then!
36. Our new address is 475 Park Avenue South, New York, N.Y., 10016.
37. Or you can fax us at (212) 686-7414.
38. The July issue of *Dell Math Puzzles and Logic Problems* goes on sale May 18th (not 40th).
39. And that's it...We editors can't think of any more darn facts!
40. Therefore, we're going to try to catch 40 winks now!

the Editors

SOLVERS: If you are having problems finding any Dell Magazines at your favorite retailer, we want to help. First, let the store manager know that you want the store to carry your favorite titles. Then, send us a letter or postcard telling us the names of the magazines you cannot find, along with the full name and address of the store (with street name and number, if possible). Write to us at: Dell Magazines, Dept. NS, 6 Prowitt St., Norwalk, CT 06855-1220. Thank you!

ROUTE 13

Starting at the S arrow and passing only through squares whose digits add up to 13, can you find the correct path through the maze below that takes you to the F arrow? You may not move from any square to another unless the two squares are adjacent horizontally or vertically; in other words, no diagonal moves are allowed. Our navigation expert discovered Route 13 in, naturally enough, 13 times 10 seconds; that's just a bit over two minutes. How does your time match up? **Solution is on page 61.**

S ↓

1831	5074	4225	0517	9231	2418	1048	9124	6530	1570	4180
3283	0418	2119	9060	9013	4405	3145	5371	6052	1833	8701
7312	5413	1940	1494	2812	2243	1282	6501	7501	1048	3145
6341	2812	1075	3505	9004	2325	9121	6063	6502	4424	1561 → F
1910	3082	1191	6710	3033	1941	3721	0614	0760	2722	8200
7033	5252	6133	2065	8113	3028	5026	7411	9303	2605	7210
0618	2514	2119	6211	1048	7802	9002	1721	8113	7303	9221
1561	4045	5530	3910	1823	0706	1165	7222	0671	6313	5352
3910	7011	4345	6014	9005	5080	8114	8320	3602	4045	5062
9040	4612	5800	0391	2335	8122	4713	3262	5126	8041	1724
6237	9024	7311	2460	5271	4406	3316	5800	5332	3622	0625

ALL IN A ROW

Which row below contains the most groups of consecutive numbers adding up to 15? Look carefully, because some groups may overlap. We've underlined an example of a group in each row to start you off. **Answer is on page 65.**

A. 4 4 4 3 9 5 8 1 7 7 6 2 2 9 4 3 1 6 1 8 3 5 5 5 9 1 1 1 9 9

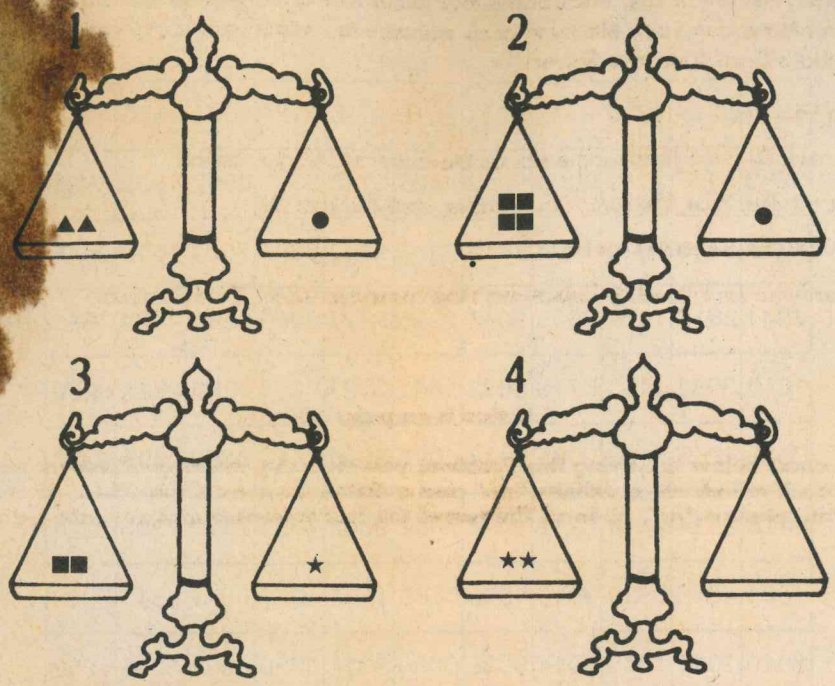
B. 6 6 3 7 9 3 4 6 8 2 5 1 1 1 1 4 9 9 1 7 3 3 4 4 1 8 2 2 4 1

C. 8 7 5 3 8 1 9 6 6 6 6 3 1 2 3 4 5 8 9 7 6 5 2 2 2 2 2 2 2 1

IN THE BALANCE

Scales 1, 2, and 3 are perfectly balanced. Can you determine how many triangles it will take to balance scale 4?

Answer is on page 65.



TOTALLY!

This puzzle should be totally fun! First, add up the numbers in each row and column in the diagram below and enter the total in each line's empty square. Next, write down the letters from the three lines that have the same exact total. Lastly, unscramble those nine letters to form the name of a continent.

Answer is on page 65.

N	9	E	1	4	C	12	2	
10	U	5	R	2	2	A	8	
M	5	8	6	L	7	N	2	
1	1	8	K	4	S	9	C	
5	2	A	4	I	3	R	8	
3	T	1	N	6	13	1	Q	
A	6	S	3	11	T	3	4	
12	Y	7	8	A	4	1	E	

LOGIC PROBLEM

1. THE DJS AT DJS

by KEVYN DYMOND

During their senior year at the Davy Jones School (or DJS), Wu and three other students are working as disc jockeys at the college's radio station. As it turns out, each of the four plays a different type of music and is majoring in a different subject. From the clues below, can you determine each person's full name, music style, and field of study? If you can, call yourself a DJS — that's Darn Judicious Solver!

1. Lisa is the math major.
2. Brad is neither the rock DJ (who is the same sex as the classical DJ) nor Talbot.
3. The four students are Mike, Rice, the journalism major, and the jazz DJ.
4. Gina isn't the one who plays country music.
5. The chemistry major (who isn't Pavel or Talbot) isn't the same sex as the English major.
6. Talbot isn't Mike.

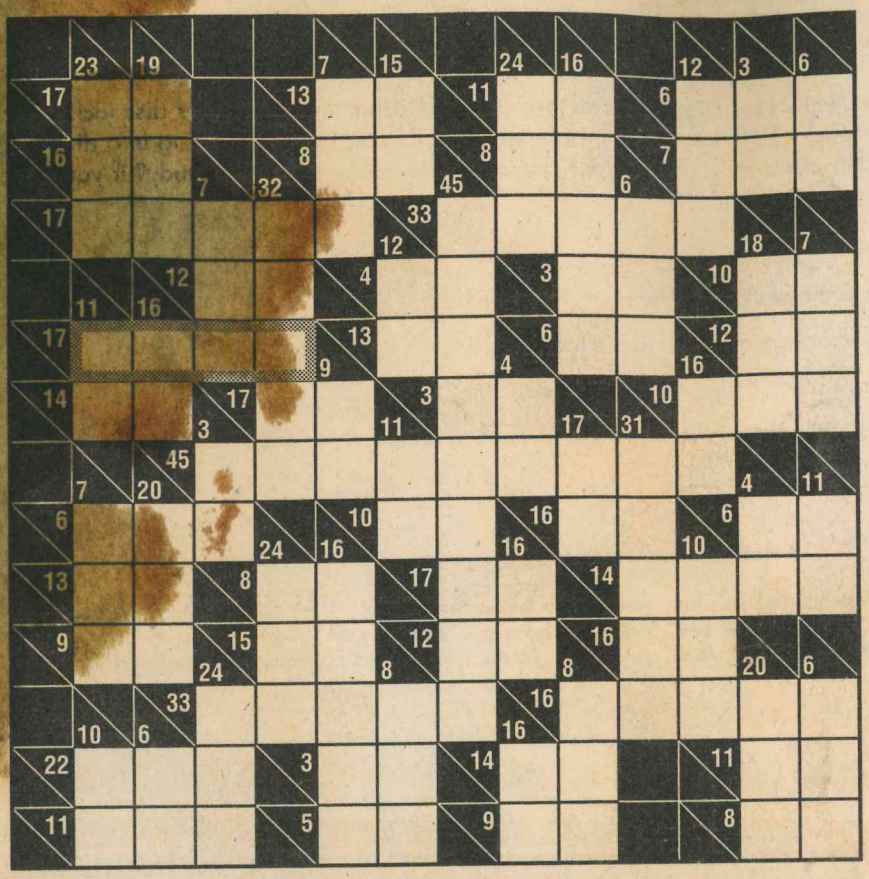
Solution is on page 62.

If you care to use the chart below in solving this Problem, you do so by entering all information obtained from the clues using, perhaps, an X to indicate a definite "no" and a dot to show a definite "yes." Remember: Once you enter a definite "yes" (dot), place a "no" (X) in all the rest of the boxes in each row and column that contains the dot.

	Pavel	Rice	Talbot	Wu	classical	country	jazz	rock	chemistry	English	journalism	math
Brad												
Gina												
Lisa												
Mike												
chemistry												
English												
journalism												
math												
classical												
country												
jazz												
rock												

If you wish to learn more about the use of Logic Problem charts and how they can assist you, send for a free leaflet of easy-to-follow instructions, "Solving Logic Problems, Step by Step." Mail to Dell Math Puzzles and Logic Problems, Dept. L.P., Dell Magazines Direct, 6 Prowitt St., Norwalk, CT 06855-1220. Please enclose a stamped, self-addressed envelope (long-letter size, if possible, please).

CROSS SUMS

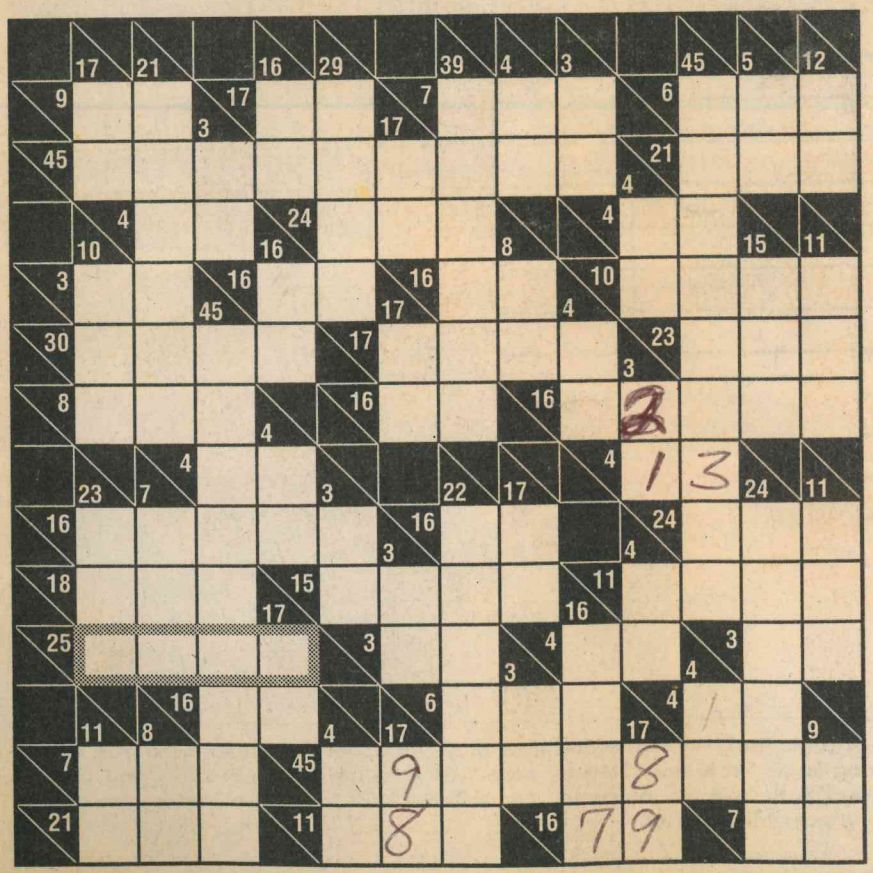


NUMBER 1

In these puzzles, the numbers in the black squares refer to the SUMS of the digits that you are to fill into the empty spaces. The number ABOVE the diagonal line refers to the empty spaces directly to the RIGHT of that number. A number BELOW the diagonal line refers to the empty spaces directly BELOW that number.

No zeros are used here, only the digits one through nine. An important point: A digit cannot appear more than once in any particular digit combination. We have outlined one area in each diagram. If you need help starting a puzzle, the digit combination to go into that area is listed on page 66.

Solutions are on page 59.



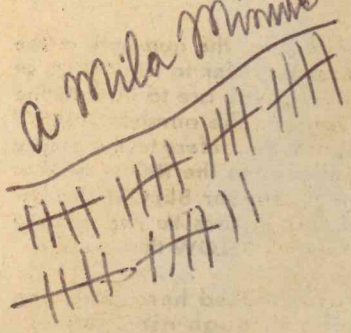
NUMBER 2

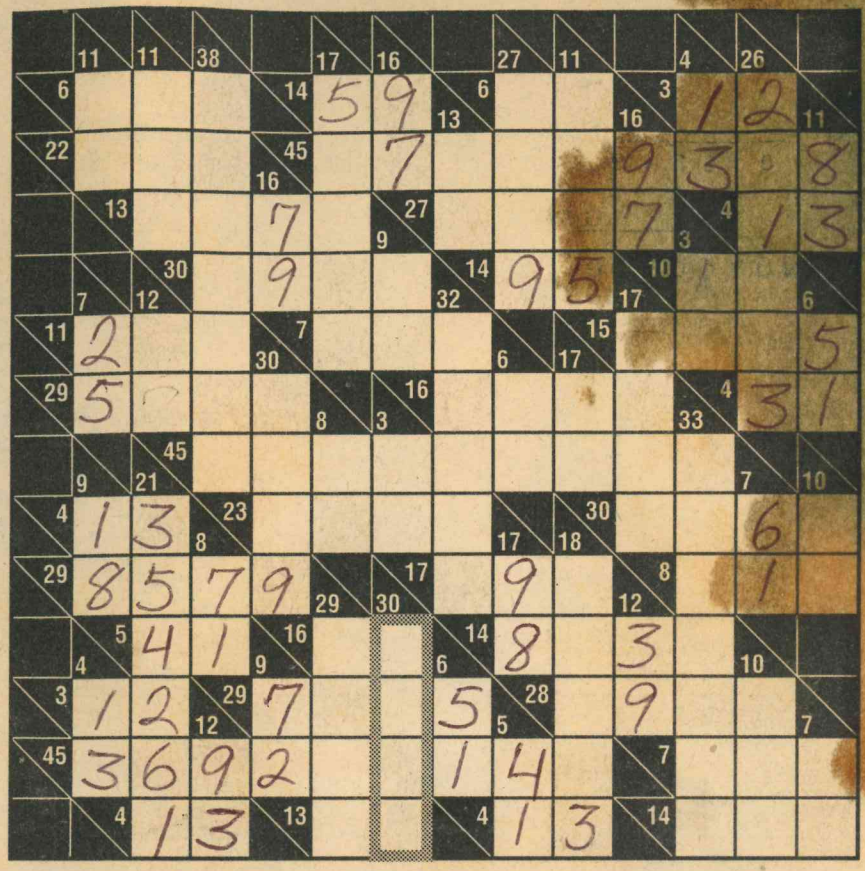
Very carefully, DEBBY!

Add more to your total puzzle enjoyment with ***Collector's Series Cross Sums.*** *You'll find over 100 of your favorites. To order, see page 27.*

CROSS SUMS

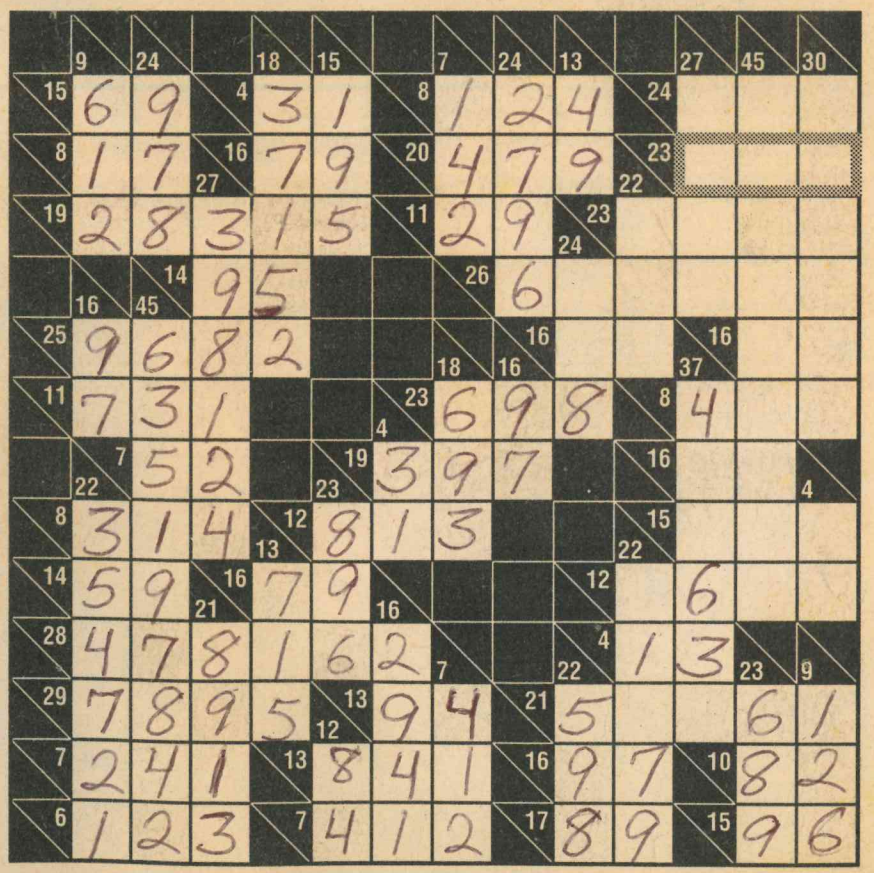
NUMBER 3





Solutions are on page 59.

NUMBER 4



WORD ARITHMETIC

These are long-division problems in which letters are substituted for numbers. Solve the problem; determine the number value of each letter; and, when the letters in each one have been arranged in order from 0 to 9, they will spell out a word or words.

Answers are on page 66.

1.

0 1 2 3 4 5 6 7 8 9

```
        GET
NUT | GINGER
      NUT
      EINE
      GUAO
       TTOR
       EOGD
        UAO
```

2.

0 1 2 3 4 5 6 7 8 9

```
        FIE
DIE | FASTED
      EDSF
       ILEE
       AIUI
        ESTD
        DIE
        SNI
```

3. BOWLERHATS

0 1 2 3 4 5 6 7 8 9

```
          312
          LOW
8479   264579
TEAS | WHEREAS
       25437
       WRELA
       10177
       OBOAA
        8479
        TEAS
       16989
       OHSTS
       16958
       OHSRT
          31
          LO
```

4.

0 1 2 3 4 5 6 7 8 9

```
        ALE
CAR | EARLY
      CAR
      RFFL
      ILYI
       YYIY
       YYAU
          T
```

5.

0 1 2 3 4 5 6 7 8 9

```
        ALI
ZOO | LONDON
      FYKZ
       FIFO
       FKLO
        YKN
        ZOO
         FZ
```

6. DYNAMICSET

0 1 2 3 4 5 6 7 8 9

```
          952
          TIN
3187   303432 9
AYES | ADAMANT
       28683
       NECEA
       16602
       YCCDN
       15935
       YITAI
        6679
        CCST
        6374
        CASM
         305
         ADI
```

7. TAILORHEMS

0 1 2 3 4 5 6 7 8 9

```
          457
          ORE
6789  310675 9
HEMS | LATHERS
       37156
       IEARH
       39115
       LSAAR
       33945
       LLSOR
       51709
       RAETS
       47523
       OERIL
        4186
        OAMH
```

8.

0 1 2 3 4 5 6 7 8 9

```
        OUT
STEM | DEMISE
      DMOC
       TUIS
       STEM
        ZZZE
        ZUMM
         IST
```

9.

0 1 2 3 4 5 6 7 8 9

```
        OAT
ERE | TRACKS
      TRAF
       OKS
       HCH
       FAK
```

FIGURE LOGIC 1

Solve Figure Logic by completing some simple arithmetic problems, which will enable you to move from clue to clue through the puzzle. You will not always be able to complete an entire number at first, but you may be able, by logic, to determine what one or more of the digits must be. If you enter those digits into the diagram, they may help you to solve other clues, and you can eventually return to the unfinished numbers and finally complete them.

NOTE: A square of a number is that number multiplied by itself. For example, the square of 6 is 36 (6 x 6 = 36).

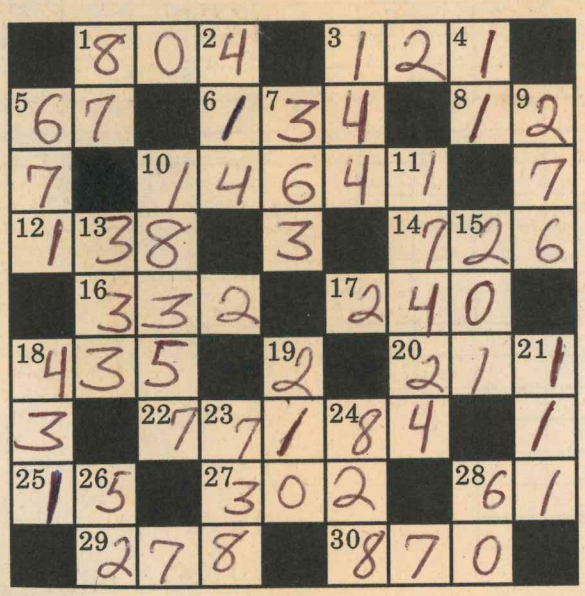
A starting help is given on page 66.

ACROSS

1. Four times 15-Down
3. Its digits total four
5. One-half of 6-Across
6. Digits of 18-Down reversed
8. One more than 4-Down
10. Square of 3-Across
12. One-half of 9-Down
14. Two times 7-Down
16. 3-Across plus 20-Across
17. Two times 19-Down
18. Five times 1-Down
20. 3-Down plus 5-Across
22. Square of 29-Across
25. One-fourth of 28-Down
27. 7-Down minus 28-Across
28. 5-Down divided by 4-Down
29. Two more than 9-Down
30. Two times 18-Across

DOWN

1. One-fifth of 18-Across
2. Three times 12-Across
3. Square of 8-Across
4. First two digits of 21-Down
5. 17-Across plus 18-Down
7. Three times 3-Across
9. Two times 12-Across
10. 1-Down times 20-Across
11. 3-Down times 3-Across
13. Same digit three times
15. Three times 5-Across
18. Digits of 6-Across reversed
19. Its digits total three
21. One-third of 13-Down
23. 5-Down plus 5-Across
24. Three times 9-Down
26. 5-Across minus 25-Across
28. Five times 8-Across



121
×121
121
242
121
14641

144
×121
144
288
144
17424

211
×87
1477
1688
18357

Solution is on page 60

LOGIC PROBLEM

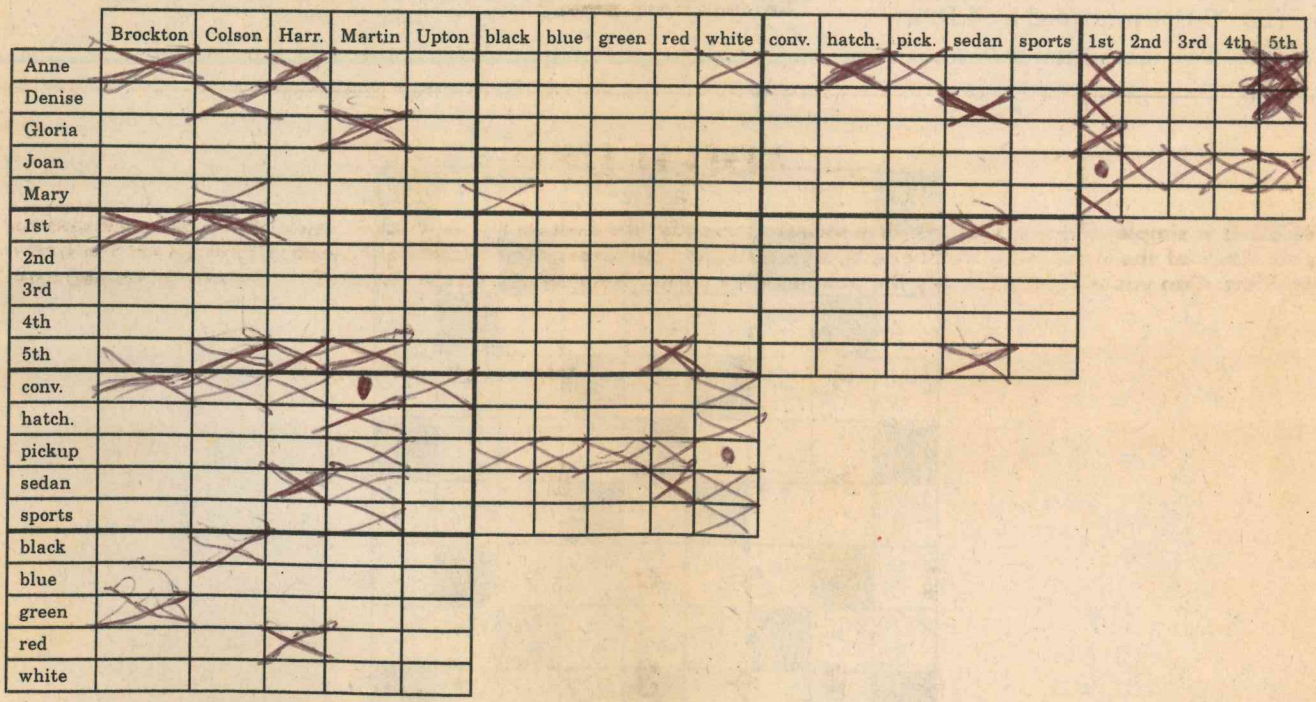
2. IT'S A NEW CAR!

by JEAN HANNAGAN

Gordon's Autos ran a special discount yesterday, and fared so well that five sales (one was for a sports car) were made in the very first two hours of business! Ms. Upton and the other four customers in question each chose a different type of vehicle, and in a different color, too. After reading the eight clues which follow, are you able to determine each woman's full name (one first name is Joan), the color (one is blue) and type of vehicle she bought, and the order in which the five made their purchases?

1. Denise came in sometime after the sedan was sold.
2. Mary made a purchase sometime after Ms. Colson, but neither bought the black vehicle.
3. Ms. Brockton didn't buy the green vehicle.
4. Ms. Martin purchased her convertible sometime before Gloria arrived.
5. The sedan was sold sometime after the red vehicle.
6. Denise was in sometime before Ms. Colson.
7. Ms. Harrison (who didn't buy the red vehicle or the sedan) was in sometime before Anne (who hated the hatchback).
8. Anne didn't get the white pickup, which was sold sometime before Ms. Brockton's purchase.

Solution is on page 62.
See page 7 for directions on how to use the solving chart.



THESE ARE THE DAYS

Monica Day (Mon, to her friends) attends Dell University — naturally, as a day student! This semester she is taking introductory courses in biology, chemistry, calculus, art, and French, but as it turns out, each class is scheduled on a different weekday. From Monica's statements below, can you determine the day on which she goes to each class? **Answer is on page 65.**

1. "I attend art the day before I attend French."

2. "Calculus is Friday's class."

3. "Chemistry and biology aren't on consecutive days."

4. "Biology and French come earlier in the week than chemistry."

FAMILY STYLE

Mary and Julian are both ten years old, and Julian's brother is only eight. If Mary's father is the uncle of Julian's brother, what is the relationship between Mary and Julian?

Answer is on page 65

ADD IT UP!

Below is a simple addition problem in a substitution code; the numbers 1, 3, 4, 8, 9, and 0 have been entered for you. Each of the remaining numbers, 5, 6, and 7, is represented by a different symbol throughout the entire problem. Can you correctly identify the values of the plane, the phone, and the scissors? **Answer is on page 65.**

LOGIC PROBLEM

3. UNAPPETIZING APPETIZERS

by JEAN UPSHALL

"Mommy, can I help make dinner?" asked six-year-old Gail. Mom thought for a moment and replied, "Why don't you make the appetizer, sweetheart?" Well, for the next five days, Monday through Friday, Gail prepared some mighty unappetizing appetizers, as each contained three different ingredients that most decidedly don't go well together. After Friday's meal, her brother Nick begged to take over, and not surprisingly Mom gave in! Knowing that one of the ingredients used was honey, can you use the clues below to recreate Gail's appetizer menu?

1. On Wednesday, Gail's appetizer included stuffed mushrooms.

2. She made a salad of lettuce, carrots, and chocolate sauce the day before she used marshmallows and two days after she used licorice (which was not served with bananas).

3. On three consecutive days, Gail used olives, shrimp, and peanut butter, in that order.

4. She combined crackers and jam sometime before she combined pickles and sour cream.

Solution is on page 62.

The table below was found to be of more help in solving this Logic Problem than the usual chart.

	INGREDIENT	INGREDIENT	INGREDIENT
MONDAY			
TUESDAY			
WEDNESDAY			
THURSDAY			
FRIDAY			

KROSS NUMBER KRISS KROSSES

Fit the number combinations supplied with each diagram into their proper places in the puzzle squares. The combinations are in numerical order according to length. If you need help getting started, the numbers that go into the outlined areas are listed on page 66.

Solutions are on page 60.

3 Digits

010
134
211
304
432
433
493
631
670
788
807
809
823
881
967

4 Digits

0140
0191
0378
0433
0605
0760
1793
3178
3460
3476
3498
4103
6503
6764
7324
7400
7478
7709
9807

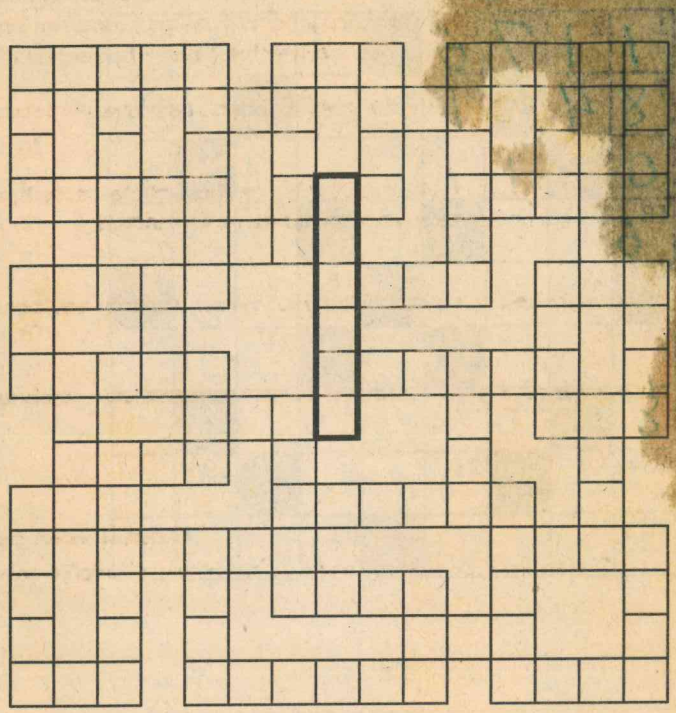
5 Digits

13891
17760
31093
37890
41004
41985
61637
70014
70798
81979
94060

6 Digits

023461
123408
143870
212306
616781
810320
823400

1.



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7 Digits

1455975
2129752
2510229
2676721
2911125
3107424
3749774
3874058
4129449
4604024
4634827
4706822
4730712
4734779
5299332
7583957
7842148
7879302
7924811
8094949
8112197
8222577
8389568
9124304
9202841
9632982
9918855

2.

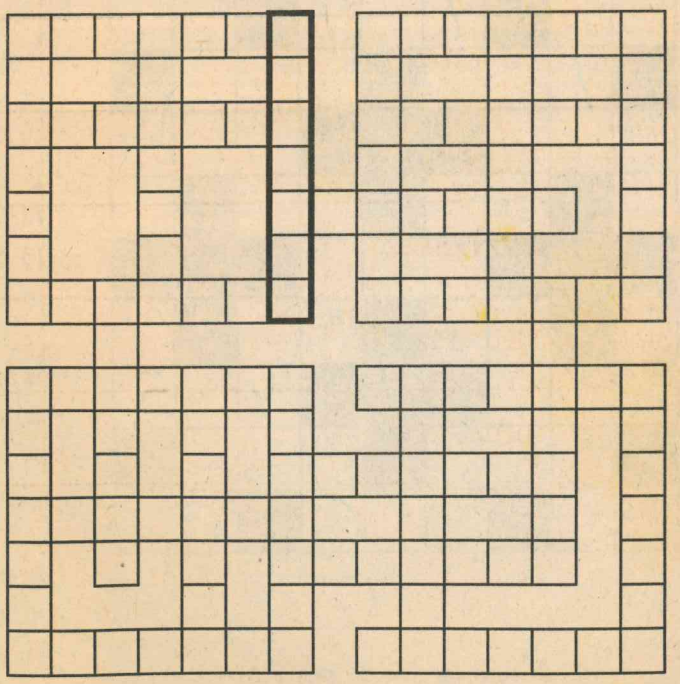
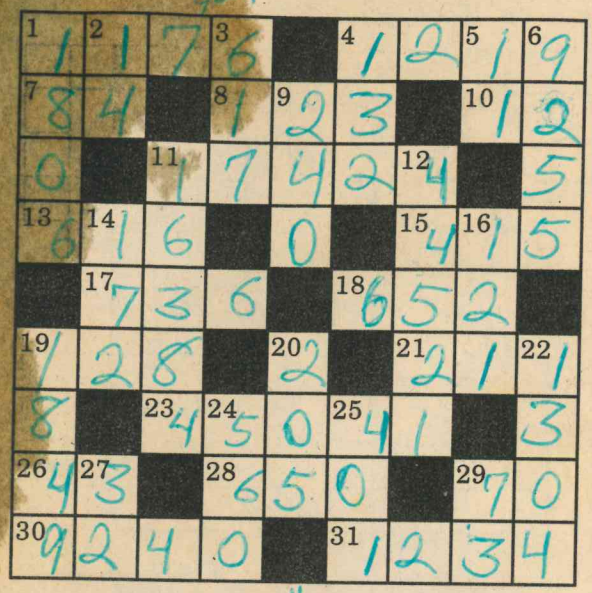


FIGURE LOGICS 2 & 3

Directions for solving are on page 11. If you need help starting these puzzles, starting helps are given on page 66.

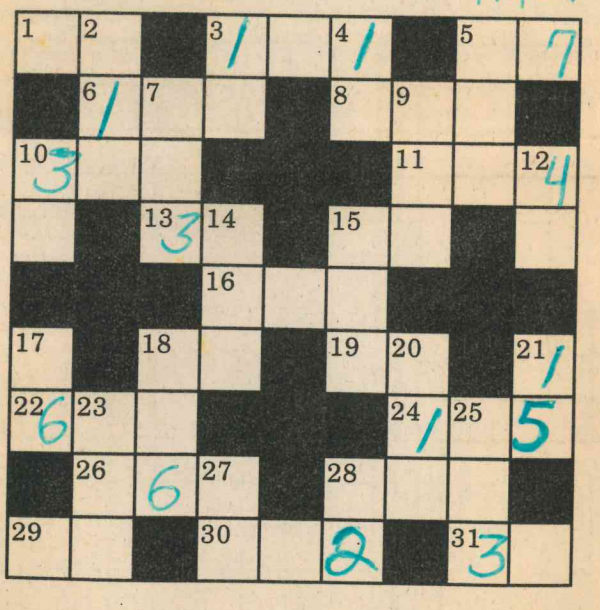


ACROSS

1. 2-Down times 7-Across
4. 1-Across plus 26-Across
7. Seven times 10-Across
8. Three consecutive digits in ascending order
10. One more than 5-Down
11. Square of 4-Down
13. Forty-four times 2-Down
15. 2-Down plus 25-Down
17. 7-Across plus 18-Across
18. One-half of 22-Down
19. Four times 27-Down
21. Digits of 16-Down in a different order
23. 3-Down times 29-Down
26. 5-Down plus 27-Down
28. Two less than 18-Across
29. 7-Across minus 2-Down
30. 4-Down times 29-Across
31. Twice 3-Down

DOWN

1. 19-Down minus 26-Across
2. One sixth of 7-Across
3. One more than 13-Across
4. 5-Down times 10-Across
5. Last two digits of 21-Across
6. Fifteen times 3-Down
9. Twenty times 10-Across
11. Square of 19-Across
12. Square of 21-Across
14. Four times 26-Across
16. Square of 5-Down
19. Square of 26-Across
20. 4-Down plus 29-Down
22. 29-Across plus 31-Across
24. Eight times 29-Across
25. Fourteen less than 15-Across
27. One hundred less than 4-Down
29. 7-Across minus 5-Down



ACROSS

1. 31-Across minus 4-Down
3. One-third of 25-Down
5. One-sixth of 30-Across
6. One-eighth of 2-Down
8. One-half of 23-Down
10. One-half of 22-Across
11. 3-Across plus 7-Down
13. One more than 31-Across
15. Two less than 1-Across
16. One-half of 5-Down
18. Two more than 19-Across
19. 3-Down plus 4-Down
22. 15-Across times 10-Down
24. 30-Across plus 25-Down
26. Three times 10-Across
28. 26-Across minus 14-Down
29. Three times 18-Across
30. 2-Down minus 5-Down
31. 15-Across plus 3-Down

DOWN

2. 4-Down times 17-Down
3. One-third of 12-Down
4. One-seventh of 29-Across
5. Six-times 21-Down
7. One-half of 18-Down
9. 16-Across plus 15-Down
10. One-seventh of 18-Down
12. Four more than 10-Down
14. One-third of 20-Down
15. One-half of 11-Across
17. One fourth of 11-Across
18. 1-Across times 3-Down
20. 6-Across plus 5-Down
21. One-ninth of 24-Across
23. 1-Across times 19-Across
25. Nine times 5-Across
27. Three times 31-Across
28. Four less than 17-Down

Solutions are on page 60

LOGIC PROBLEM

4. ARE WE THERE YET? by SUSAN ZIVICH

Mrs. Lowry wanted to take advantage of a rainy Saturday afternoon, so she loaded her five moppets into her minivan and drove them to the Natural History Museum in Logicville, 45 minutes away. Remembering past trips quite well, she had already made sure that each child had a different book and a different snack to while away the time. "Anything," she joked, "is better than 500 choruses of 'Row Row Row Your Boat!'" From the clues below, can you figure out each kid's seat in the minivan, age, book, and food?

1. Barbara snacked on a chocolate cupcake, while the eight-year-old crunched popcorn.
2. Margaret sat directly to the right of the fourteen-year-old.
3. Alexander enjoyed a book about dinosaurs.
4. The girl with the puzzle book sat right behind the twelve-year-old.
5. The child with the book of scary stories absent-mindedly chewed a peanut butter and jelly sandwich.
6. The kid with the coloring book sat up in front with Mrs Lowry.
7. Peter was peeved when the sibling directly on his left would not share the pretzels.
8. The six-year-old read a book about magic tricks during the trip.
9. Holly sat right behind the child with the granola bar.
10. The ten-year-old isn't a girl.

Solution is on page 62.

The minivan diagram below was found to be of more help in solving this Logic Problem than the usual chart.

Clues

Barbara · chocolate cupcake · 8 ·

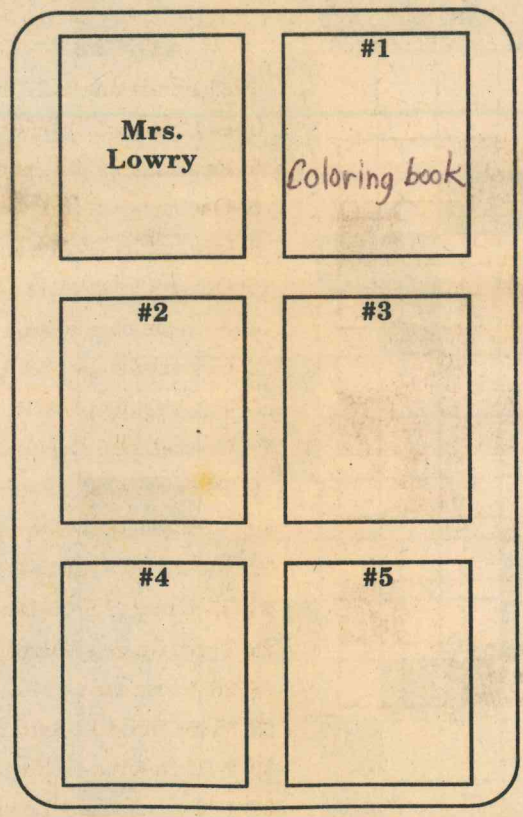
14 ·

Margaret

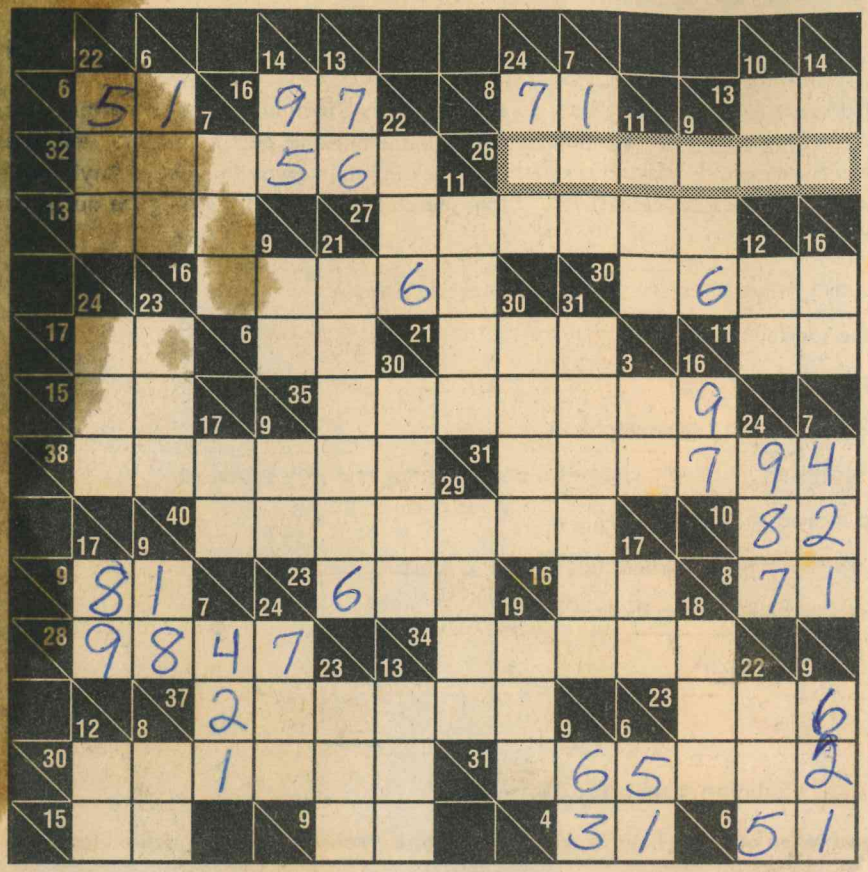
Alexander · dinosaurs ·

Peter

Holly



CROSS SUMS

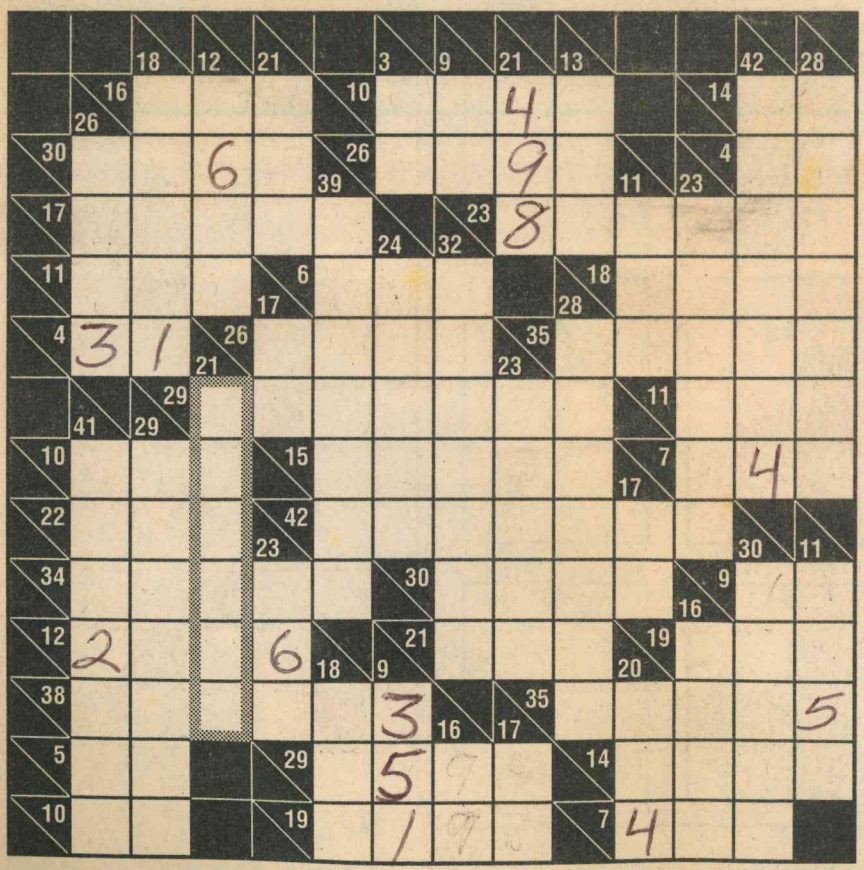


NUMBER 5

We have outlined one area in each diagram on these two pages. If you need help starting a puzzle, the digit combination to go into that area is listed on page 66.

22
23
24

Solutions are on page 59.

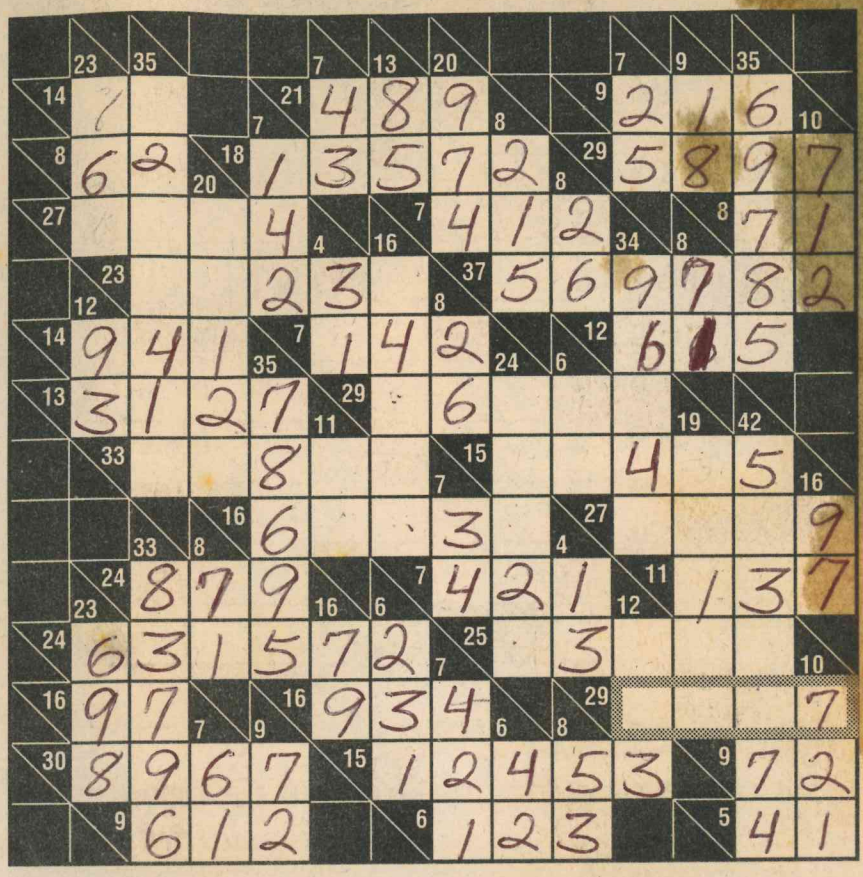


NUMBER 6

Add more to your total puzzle enjoyment with ***Collector's Series Cross Sums.*** *You'll find over 100 of your favorites. To order, see page 27.*

CROSS SUMS

NUMBER 7

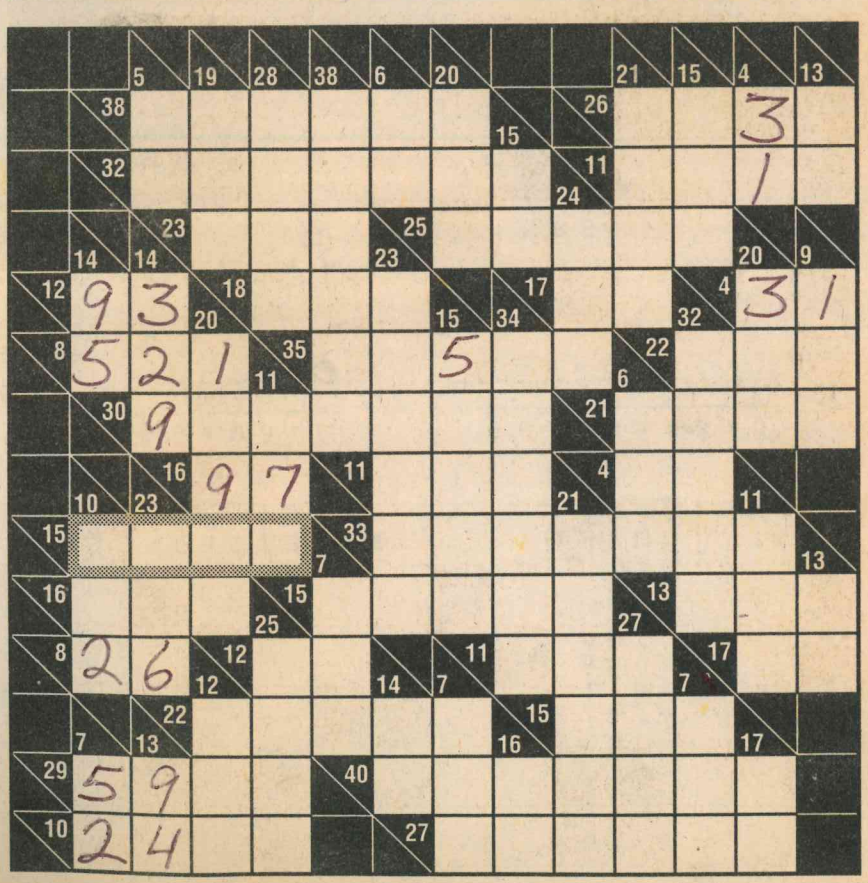


You, Lindsay, a murderer? Not!

86
62
9__4
__2
941
3127
__8

Solutions are on page 59.

NUMBER 8



WORD ARITHMETIC

Solving directions are on page 10. Answers are on page 66.

10.

0 1 2 3 4 5 6 7 8 9

```
        LEG
   ┌─────────
IDA │ GIANT
    IDA
    ─────
    IDON
    MGIM
    ────
    MTDT
    MILT
    ────
    DLO
```

11.

0 1 2 3 4 5 6 7 8 9

```
         AN
   ┌──────────
SCAN │ ALLOTS
     NALSG
     ──────
     OSNTS
     OAEUN
     ─────
     UTNO
```

12. MODELTRAIN

0 1 2 3 4 5 6 7 8 9

```
          795
          ANT
   ┌──────────
122│ 97032
ODD│ NAMED
   854
   ITL
   ────
   1163
   OORE
   1098
   OMNI
   ────
     652
     RTD
     610
     ROM
     ────
      42
      LD
```

13. WR

0 1 2 3 4 5 6 7 8 9

```
        AIR
        1
   ┌──────────
AIR│ STRAIT
   1
   ─────
   SAOA
   0
   NWI
   1
   AIR
   ────
   EOPT
   ETIN
   1
   ────
   SSR
```

14. NEWPOLKACD

0 1 2 3 4 5 6 7 8 9

```
          519
          LED
   ┌──────────
7319│ 3799519
APED│ PADDLED
    36595
    PKLDL
    ─────
    14001
    EONNE
    7319
    APED
    ────
    66829
    KKCWD
    65871
    KLCAE
    ─────
      958
      DLC
```

15. BRINYDEPTH

0 1 2 3 4 5 6 7 8 9

```
          8265
          TIED
   ┌──────────
9235│ 76328638
HIND│ PENITENT
    73880
    PNTTB
    ─────
    24486
    IYYTE
    18470
    RTYPB
    ─────
     6163
     EBREN
     5410
     DDYRB
     ─────
      4753 8
      YPDNT
      4675
      YERPD
      ─────
       1363
       RNEN
```

16. HOWITFARED

0 1 2 3 4 5 6 7 8 9

```
          417
          TOR
   ┌──────────
234│ 97654
WIT│ DRAFT
   936
   DIA
   ────
   405
   THF
   234
   WIT
   ────
   1714
   OROT
   1638
   OAIE
   ────
     76
     RA
```

17. PRINCE

0 1 2 3 4 5 6 7 8 9

```
          53
          EON
   ┌──────────
 5 │ 5 5
NICE│ SECURES
    5
    SSIOE
    ─────
    RIENE
    0
    RSCMP
    ─────
     0
     CPIES
     0 0
     CPCIP
     ─────
      OUS
```

18.

0 1 2 3 4 5 6 7 8 9

```
        DIE
   ┌──────────
NED│ NUMBER
   IBBU
   ────
   MURE
   BNIE
   ────
    PISR
    PBUI
    ────
    UNI
```

LOGIC PROBLEM

5. NOT-SO-CRAZY QUILTS

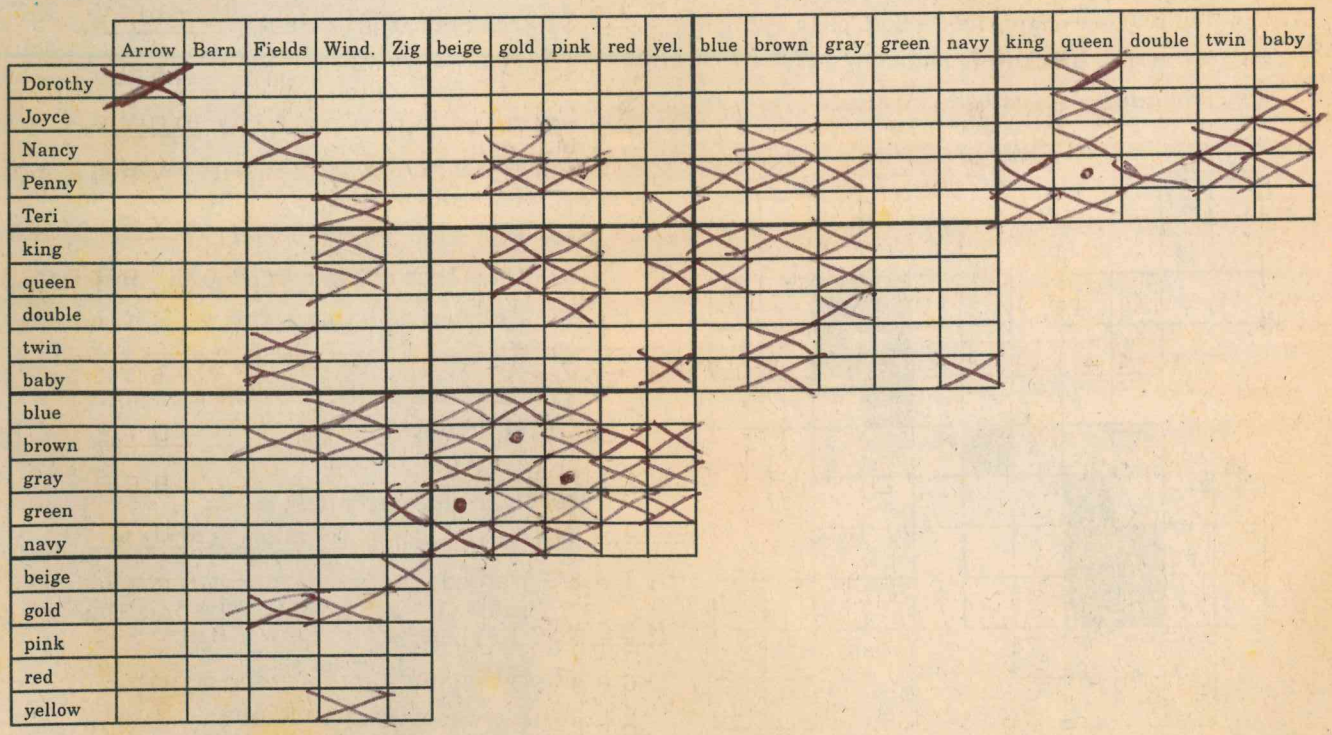
by DIANE BALDWIN

Each of the five women in the Dellville Crafts Club recently sewed a beautiful quilt, and they really went out of their way to make the quilts as diverse as possible. That is, each used a different design (one was called Barn Raising), a different light color of material (beige, gold, pink, red, or yellow), and a different dark color (blue, brown, gray, green, or navy). Each quilt was even a different size — king, queen, double, twin, or baby, in order from largest to smallest. From the information below, can you "piece together" each woman's quilt by design, colors, and size?

1. The five quilts are Penny's, the king-size one, the one with gold, the one with blue, and the Windmill quilt.
2. The Zig Zag quilt isn't the one that is beige and green.
3. The quilt with yellow is one size larger than the Windmill quilt and one size smaller than Teri's (which isn't the king).
4. Joyce didn't sew the baby quilt.
5. The three largest quilts, in some order, are Nancy's, the Fields and Furrows quilt, and the one with brown.
6. The pink and gray quilt is smaller than both the double and Penny's (which isn't the twin).
7. The quilt with gold is one size smaller than the one with navy.
8. The Arrow quilt is either one size larger than or one size smaller than Dorothy's.

Solution is on page 62.

See page 7 for directions on how to use the solving chart.



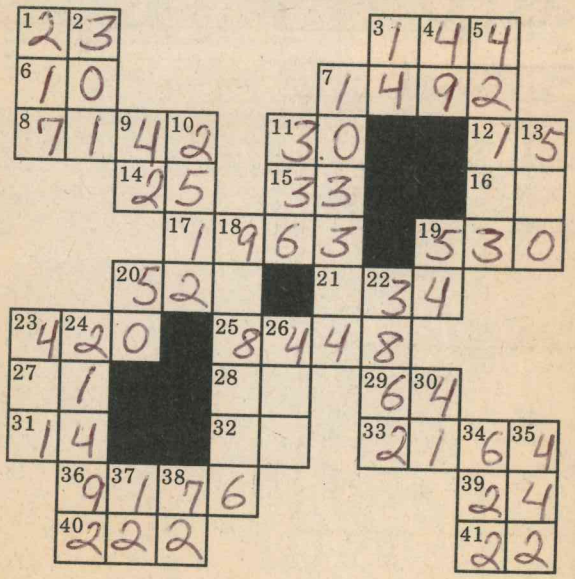
* Don't look at this page, Debby!

CROSS FIGURE

The definitions in this puzzle consist of short arithmetic problems and numerical-trivia teasers, as well as number games, jokes, and poems. Write the digits suggested by each definition into the diagram crossword style.

ACROSS

1. Rearrange the letters in "the wry tenet"
3. Ugh...what a gross number!
6. How old is Ann if she is two years older than Sue, Sue is five years younger than Matt, and Matt just celebrated his thirteenth birthday?
7. The year when old Chris made good
8. Of the — deadly sins, sloth is the hardest — — Gary — remember
11. Some folks who are pushing — Think that they'll stop being "purty"!
12. Thrice three, then twice three
14. Silver anniversary number
15. The number that doesn't belong in the series 15, 30, 33, 45, 60, 75, 90
16. How many hours are in the longest day of the year?
17. Thirty-six years ago
19. Three weeks before June 20th
20. When it's 12:55, it's really — — —
21. Total number of socks washed for these campers: A trio of tomboys, twenty teens, three sets of twins, fourteen five-year-olds, a couple of counselors, eleven lads, ten teachers, and the kitchen cook
23. "— and — blackbirds baked in a pie"
25. Two quartets between two octets?



27. A hockey stick next to a hockey stick
28. Dentist to patient: "I solemnly swear — take the tooth, the whole tooth, and — but the tooth!"
29. 80% of 80
31. XIV
32. A couple of Jacksons
33. How much Dad spent if he got $8.36 change from $30
36. PETS is to STEP as 6719 is to what?
39. Square root of 576
40. "Room —," ABC sitcom of the Seventies
41. Ballerina dress, by the sound of it

DOWN

1. If Z = 26, Y = 25, X = 24, etc., what is BAG?
2. Thirty-one divided by zero?
3. Lovely day in February?
4. Gold Rush year
5. How many seconds are in eleven hours, fifty-five minutes, and 23 seconds?
7. Its first digit is its fifth and its third is its fourth
9. Ali Baba plus his thieves plus you
10. Fifty-one, thirty-eight, —, — ...
11. Omit every other letter in atuhirvewentohcrievebstinx
13. Clue number times fifty minus ten
18. Two different odd numbers followed by four different even numbers
19. Full deck and its two jokers
20. One-tenth of one-half of a millennium
22. Change one letter in threw, sight, sip, too
23. Eleven minutes past 26-Down
24. Its fourth digit equals the sum of its four other digits
26. Teatime
30. 3-Down from bottom to top
34. On the phone, it's MNO, ABC, ABC
35. Daffy definition for "unaware": What you mustn't —get to take off be— getting in— the shower!
37. How many months are in a year?
38. A dozen and a half more than four and a half dozen

Solution is on page 60

BINGO PLAYS 1

In this puzzle, you are trying to fill your "card" with numbers and make a winning Bingo game. Just as in Bingo, each column has limits set for the numbers that can be placed in that column, as shown at the top of the card. For example, in column B, every square will have a number between 1 and 15 inclusive; in column N, every number will be between 31 and 45 inclusive. Use the given clues to eliminate possibilities within those limits until you can enter one final number in each square. A number will appear only once in any column. The "free" space in the center of the card is just that; you need not enter a number in that square. After you have filled in your card, find the Bingo winning combination: Just as in Bingo, the numbers in one row, column, or diagonal will fit the clues given. Circle these numbers and you have won the game! **Solution is on page 60.**

1. The number one does not appear on the card as a single-digit number, nor does it appear in row P, column N, square LI, AI, AO, YB, SG, or SO, or in the winning combination.
2. The number two does not appear in row A, Y, or S, column B, or square LO.
3. The number three does not appear in row L or Y, column B or G, or square PI or AO.
4. The number four does not appear in row P, A, or S, column B, G, or O, or square LI.
5. The number five does not appear in row P, column O, or square LB, LI, AB, or SN.
6. The number six does not appear in row S, or square PI, PN, PO, LI, LG, AG, or YG.
7. The number seven does not appear in row Y, column I, N, or G, or square LO or AB.
8. The number eight does not appear in row L or A, column N or O, or square SG.
9. The number nine does not appear on the card as a single-digit number, nor does it appear in row A, column G, square LO, YI, or SI, or in the winning combination.
10. Zero does not appear in row L, column B, or square PI, PO, AG, AO, YN, YG, SG, or SO.
11. The number 55 is the only same-digit double-number combination on the card.

Jennifer & Michelle
"I'm Into Something Hot"
Bitter Beer
R & D Records

	B 1 - 15	I 16 - 30	N 31 - 45	G 46 - 60	O 61 - 75	
P	8	28	32	60	72	P
L	7	29	42	52	61	L
A	6	30	FREE	55	67	A
Y	5	16	45	51	69	Y
S	15	18	39	50	73	S
	B	I	N	G	O	

FIGURE LOGIC 4

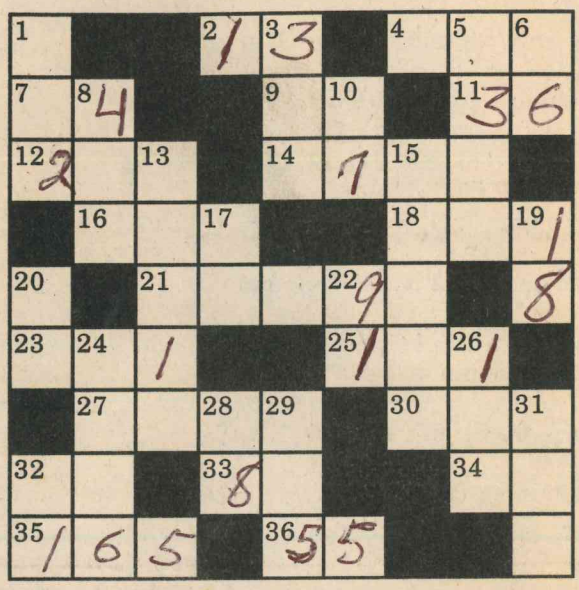
Directions for solving are on page 11. If you need help starting this puzzle, a help is given on page 66.

ACROSS

2. One-seventh of 22-Down
4. 3-Down minus 35-Across
7. 10-Down minus 2-Across
9. 11-Across plus 34-Across
11. Two times 19-Down
12. 2-Across times 20-Down
14. 25-Across times 34-Across
16. 17-Down times 32-Down
18. 31-Down minus 32-Across
21. 27-Across times 17-Down
23. 31-Down minus 8-Down
25. One-fifth of 29-Down
27. Four times 8-Down
30. 10-Down times 17-Down
32. 7-Across minus 33-Across
33. 34-Across minus 17-Down
34. 2-Across plus 19-Down
35. Three times 36-Across
36. 22-Down minus 11-Across

DOWN

1. Two times 23-Across
3. 30-Across minus 8-Down
5. 30-Across times 17-Down
6. 7-Across plus 20-Down
8. 32-Across times 17-Down
10. One-third of 23-Across
13. Seven times 5-Down
15. 4-Across times 12-Across
17. 36-Across minus 32-Across
19. 4-Across divided by 17-Down
20. One-half of 32-Across
22. Five more than 6-Down
24. 15-Down divided by 19-Down
26. One-half of 12-Across
28. One-half of 7-Across
29. 1-Down plus 26-Down
31. Five times 26-Down
32. 10-Down minus 11-Across



Solution is on page 60

WHAT'S YOUR NUMBER?

If you subtract 3 from our number and multiply the result by 2, the answer will be your number. If you add 3 to our number and divide the result by 2, the answer will also be your number. What's your number?

Answer is on page 65.

OUR NUMBER _____ − 3 x 2 = _____ YOUR NUMBER

_____ + 3 ÷ 2 = _____

LOGIC PROBLEM

6. SUNDAY IN THE PARK WITH GEORGE FREDERICK HANDEL

by MARY POWELL

The Whitmore Village Square is a busy center for community activities all year, and some of the most popular are the free concerts that are held each Sunday at noon. Every week, families spread blankets on the lawn so they can eat their picnic lunches to the strains of a certain composer's music played by a soloist. All of the four concerts last month were devoted to the work of Handel; the accordionist, oddly enough, was the biggest hit! From the clues below, can you determine each musician's full name and instrument, as well as the order in which the four played?

1. Jordan's concert was the week after the violinist played, and Chapman's was the week after the accordionist's.
2. Neither Angela nor Seabrook performed last.
3. Neither Kelly nor Harrison plays the guitar.
4. Dwayne's concert was the week before Kingsley's.
5. Harrison does not play the harp.
6. Jordan isn't Kingsley.
7. Angela's concert wasn't second.

Solution is on page 62.

See page 7 for directions on how to use the solving chart.

	Chapman	Harrison	Kingsley	Seabrook	accordion	guitar	harp	violin	1st	2nd	3rd	4th
Angela												
Dwayne												
Jordan												
Kelly												
1st												
2nd												
3rd												
4th												
accordion												
guitar												
harp												
violin												

LOGIC PROBLEM

7. FIELD STUDY

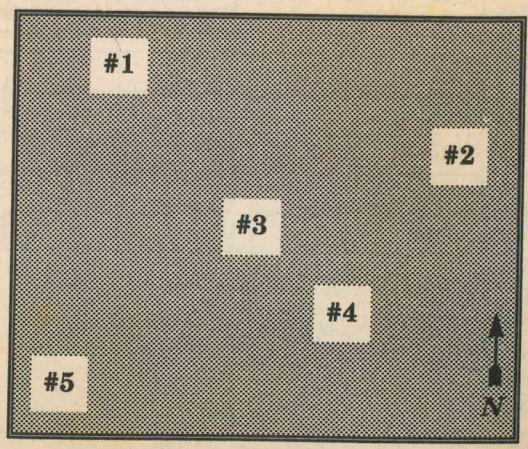
by MARY MARKS CEZUS

Roger and four members of the Treasure Seekers Club of Mystery Mountain were each rewarded with a different, unusual find when they scoured a section of Trove's Field last Saturday morning from 8:00 to 10:30. Although other folks in the club found ordinary trinkets like coins and buttons, these five discovered the most interesting objects by far, at the locations marked on the map below. From the clues that follow, can you determine each person's item, time of discovery (8:06, 8:43, 9:12, 9:37, or 10:18), and position number?

1. The silver napkin ring (which was found later than the pewter toy train) was found northwest of Hank's item.
2. The man who found the glass dish plans to return to the field and do more searching.
3. Anita found her item earlier than when the pottery doll was found but later than when position #2's item was found.
4. Darrell found his item south of where the pottery doll was found and west of the ceramic whistle's position.
5. The pewter toy train (which wasn't found at 8:43) wasn't found at position #5.
6. Belinda and the person who found something at position #3 (but not at 8:06) are best friends.
7. Darrell found his item east of the position of the item that was found the earliest (which wasn't at position #1).
8. Anita didn't find her item at 9:12.

Solution is on page 62.
See page 7 for directions on how to use the solving chart.

	dish	doll	ring	train	whistle	8:06	8:43	9:12	9:37	10:18	#1	#2	#3	#4	#5
Anita															
Belinda															
Darrell															
Hank															
Roger															
#1															
#2															
#3															
#4															
#5															
8:06															
8:43															
9:12															
9:37															
10:18															



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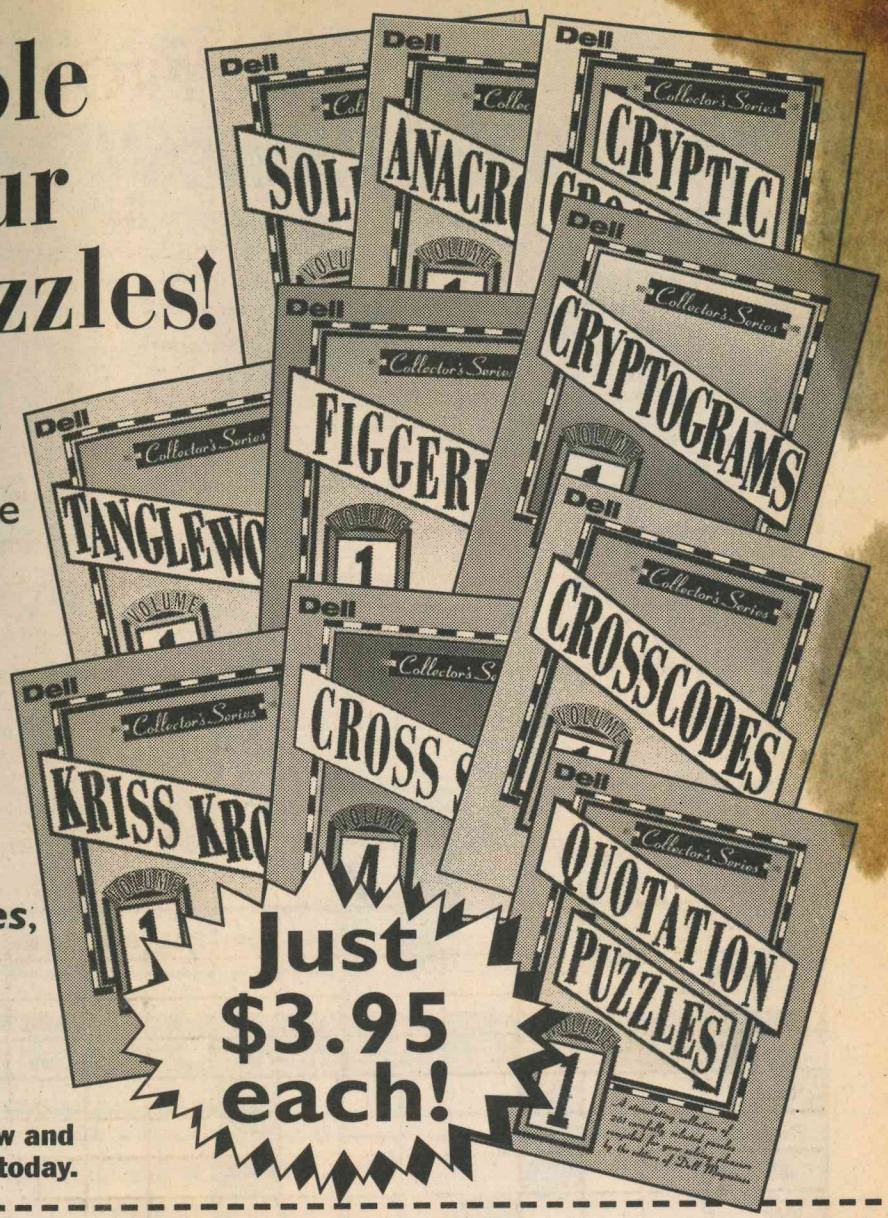

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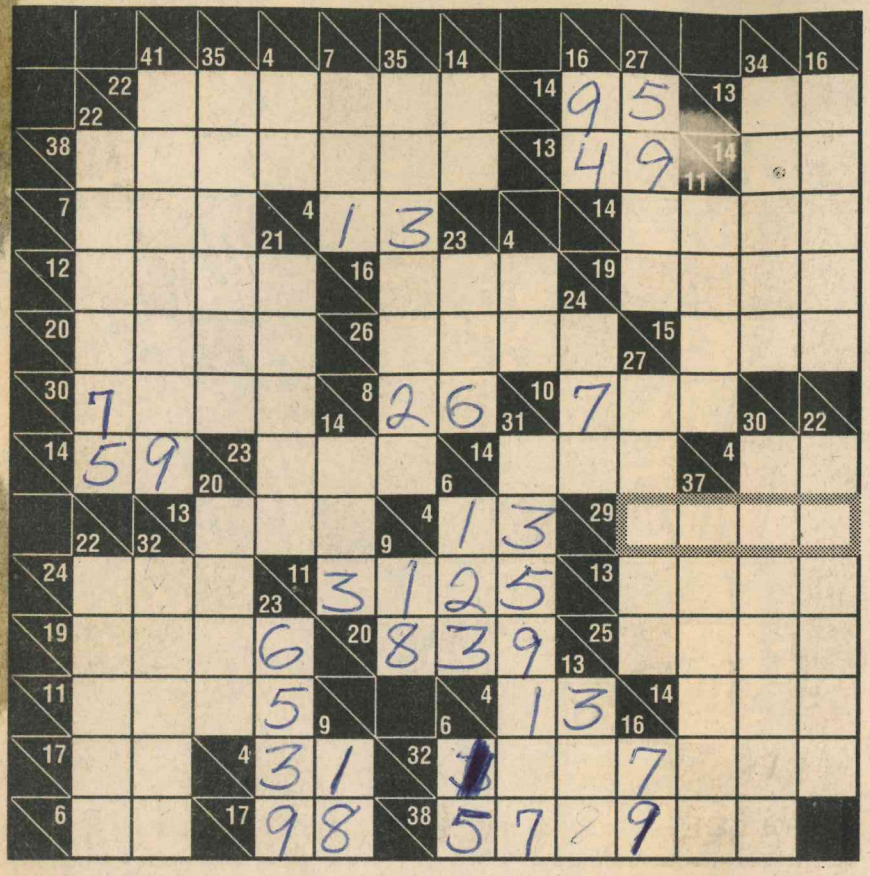
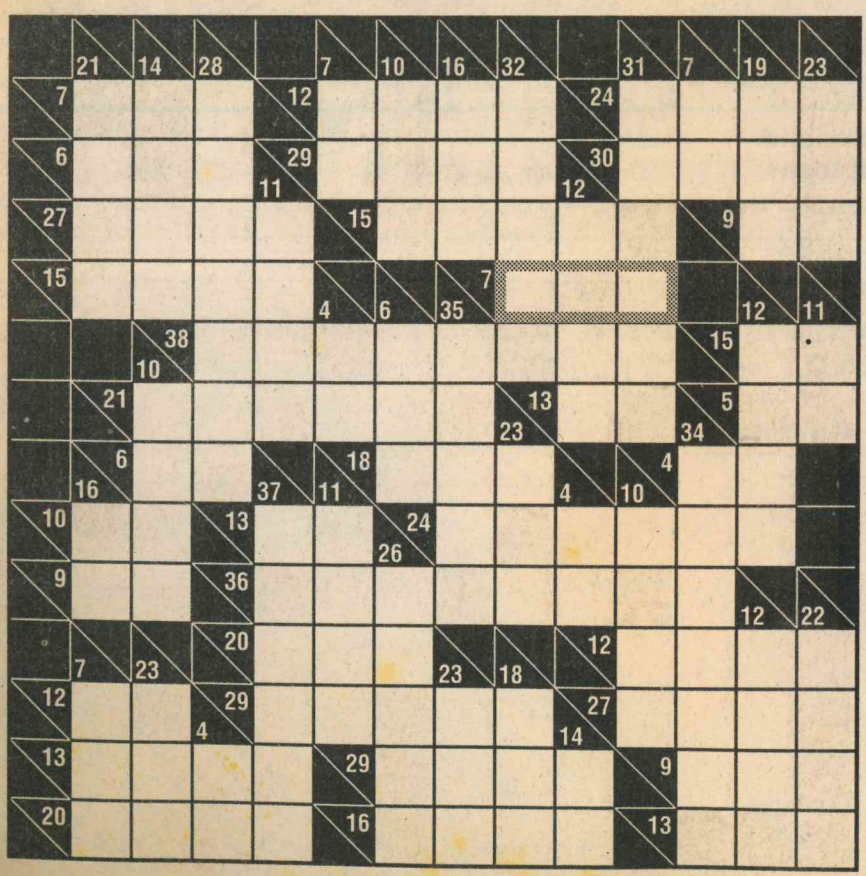


NUMBER 9

We have outlined one area in each diagram on these two pages. If you need help starting a puzzle, the digit combination to go into that area is listed on page 66.

You and your shoe dangling, Betsy!

Solutions are on page 59.



NUMBER 10

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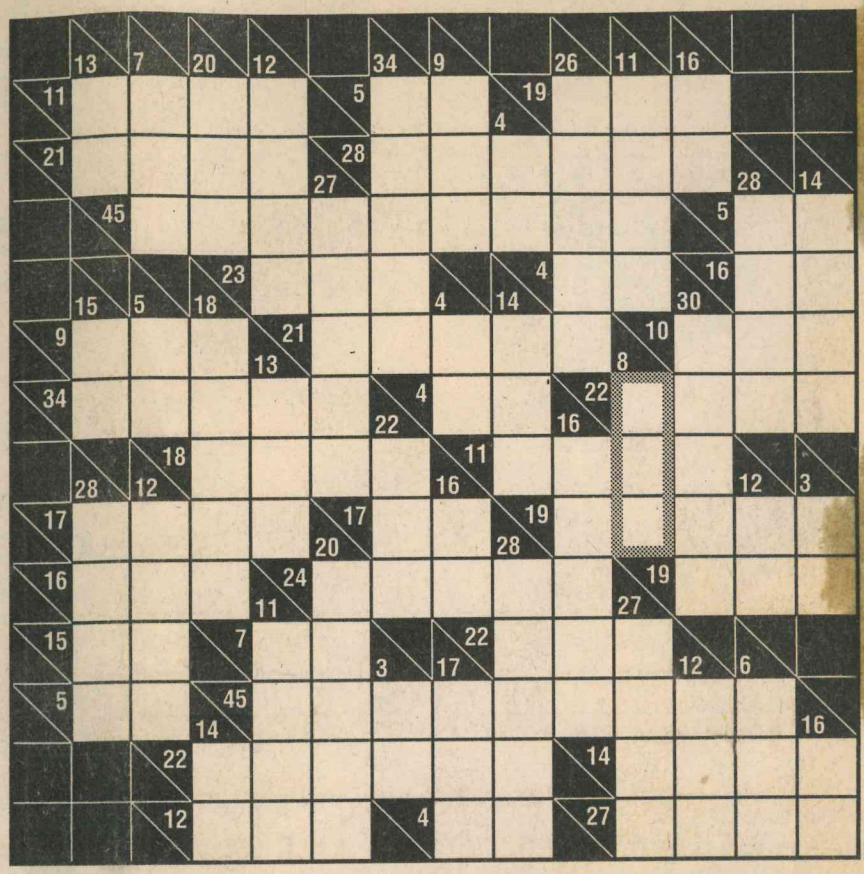
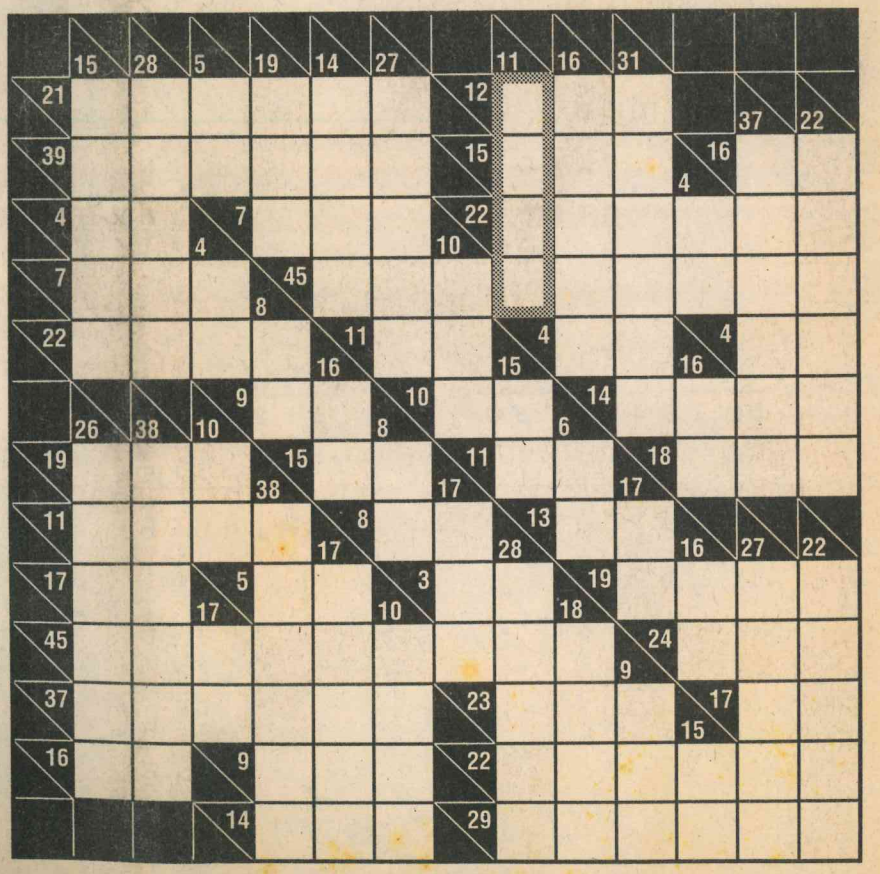
CROSS SUMS

NUMBER 11



Solutions are on page 59.

NUMBER 12



WORD ARITHMETIC

Solving directions are on page 10. Answers are on page 66.

19.

0 1 2 3 4 5 6 7 8 9

```
        OUR
   ---------
TUT | CHEST
      TUT
      ----
      OEHS
      OSKS
      ----
       USYT
       UOCO
       ----
        UUE
```

20.

0 1 2 3 4 5 6 7 8 9

```
         HIS
    ---------
ANTS | SAINTS
       ANTS
       ----
       HSSYT
       HTENA
       -----
        PEHNS
        PTYWE
        -----
         INE
```

21. J UP T

0 1 2 3 4 5 6 7 8 9

```
          NIL
     ---------
AIT | INSIST
      IOSA
      ----
       OTPS
       OUPS
       ----
        PJJT
        UNAU
        ----
         LNP
```

22.

0 1 2 3 4 5 6 7 8 9

```
        TOW
   ---------
AWE | DEMAND
      EITT
      ----
       DLIN
       DDDO
       ----
        DOAD
        DTNW
        ----
         AT
```

23. PENC | LSTUB

0 1 2 3 4 5 6 7 8 9

```
          917
          BET
     ---------
7451 | 6833166
TILE | SUCCESS
       67059
       STPLB
       -----
        12726
        ENTNS
         7451
         TILE
         ----
        52756
        LNTLS
        52157
        LNELT
        -----
          599
          LBB
```

24. R

0 1 2 3 4 5 6 7 8 9

```
        SAY
   ---------
TED | YEAST
      LTF
      ----
       SAFS
       SUTL
       ----
        0
        TRLT
        SAUT
        ----
         0
         SER
```

25.

0 1 2 3 4 5 6 7 8 9

```
        IF
   ---------
EWES | STORE
       SOWR
       ----
        LFNE
        FROL
        ----
         RLI
```

26. MAC L S

0 1 2 3 4 5 6 7 8 9

```
          499
          LEE
     ---------
210  | 9   7
CAM  | SHORE
       840
       ULM
       ---
       17 2
       AEOR
       1470
       ALEM
       ----
        17 7
        AERE
        1470
        ALEM
        ----
         127
         ACE
```

27. F O

0 1 2 3 4 5 6 7 8 9

```
          5
          NO
     ---------
5 5  | GRIME
ISIS | 5 5
       GSGS
       ----
        5
        NMSE
        0 0
        NFNF
        ----
         HNE
```

FIGURE LOGICS 5 & 6

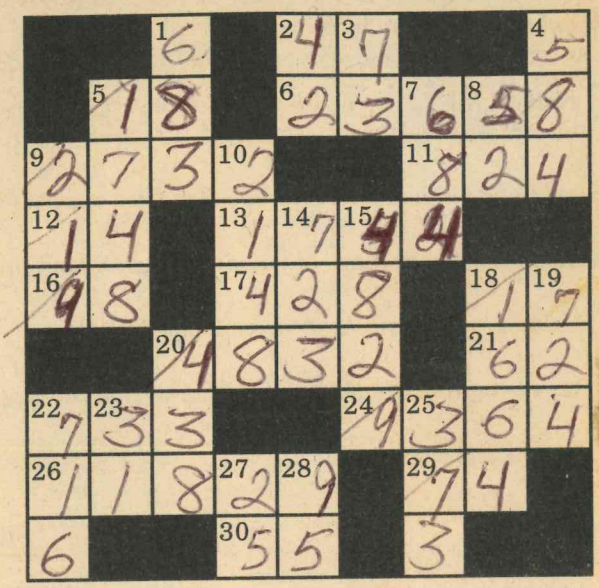
Directions for solving are on page 11. If you need help starting these puzzles, helps are given on page 66.

ACROSS

2. Digits of 29-Across reversed
5. One more than 18-Across
6. Two times 26-Across
9. Four times 1-Down
11. Digits of 17-Across reversed
12. One-seventh of 16-Across
13. Four less than 5-Down
16. Eighty more than 5-Across
17. Ten less than 20-Down
18. Thirty less than 2-Across
20. One-half of 24-Across
21. Two times 23-Down
22. 21-Across plus 25-Down
24. Eight thousand more than 18-Down
26. Seven thousand more than 15-Down
29. Sixty more than 12-Across
30. Three more than 8-Down

DOWN

1. One less than 7-Down
2. 18-Across plus 27-Down
3. One less than 29-Across
4. 9-Across minus 10-Down
5. Four hundred less than 10-Down
7. One hundred more than 4-Down
8. Ten more than 2-Down
9. Three times 3-Down
10. Three times 22-Down
14. One less than 19-Down
15. Three less than 20-Across
18. Eighty less than 13-Across
19. One hundred less than 11-Across
20. Two times 9-Down
22. Seven less than 14-Down
23. 3-Down minus 2-Down
25. Digits of 22-Down rearranged
27. Thirty less than 30-Across
28. Three less than 16-Across



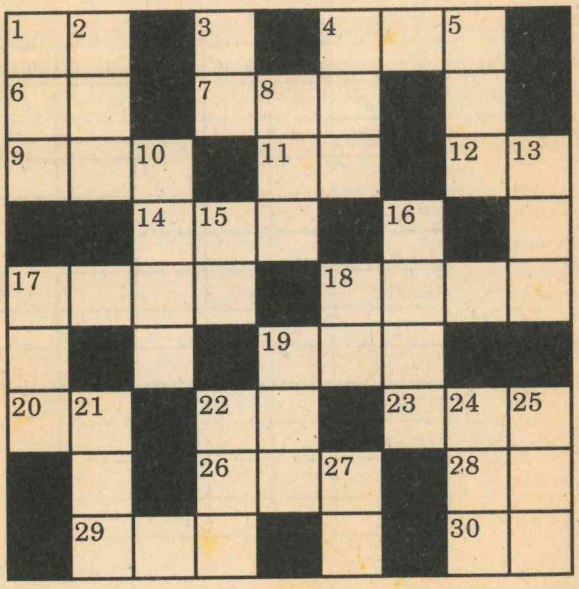
68? 64? 65? Tor-riffic?

ACROSS

1. Number halfway between 30-Across and 3-Down
4. One-fifth of 5-Down
6. 12-Across plus 22-Across
7. Number halfway between 19-Across and 24-Down
9. 10-Down minus 17-Across
11. Two times 22-Across
12. Thirty more than 22-Across
14. 1-Down minus 19-Across
17. 4-Across times 22-Across
18. 7-Across times 28-Across
19. 13-Down minus 17-Down
20. 22-Across plus 3-Down
22. Six less than 15-Down
23. 4-Down plus 25-Down
26. 13-Down minus 4-Across
28. One-ninth of 29-Across
29. 16-Down divided by 12-Across
30. One more than 12-Across

DOWN

1. 2-Down plus 4-Down
2. Number halfway between 14-Across and 17-Down
3. One-half of 4-Down
4. One-third of 23-Across
5. 21-Down minus 27-Down
8. 4-Across plus 29-Across
10. 19-Across times 27-Down
13. One-sixth of 18-Across
15. One-third of 20-Across
16. 11-Across times 19-Down
17. 9-Across plus 4-Down
18. One-seventh of 24-Down
19. One-third of 26-Across
21. 23-Across plus 17-Down
22. 2-Down minus 25-Down
24. 17-Down minus 7-Across
25. Four times 3-Down
27. 11-Across minus 28-Across



Solutions are on page 60

LOGIC PROBLEM

8. SAY CHEESE!

by KEVYN DYMOND

During their annual convention, dairy farmers in Dell County gather to share information, discuss new technology, and sample each other's wares. At this year's event, attendees kept flocking to the cheese tent, where representatives from Phyne Farms and three other local dairies offered samples of their new gourmet products. From the — ahem — cheesy clues below, can you figure out each salesperson's full name, as well as the dairy and product he or she represents? If you can, we'll say you've done a very "gouda" job indeed!

1. Neither Ms. Ford nor the representative from Very Dairy (who isn't Hart) offers Sesame Swiss (which isn't from QualiCreamery).

2. Lane and the representative from Zen Glen are not the same gender.

3. Mann is either Barbara or the representative for Garlic Gouda.

4. Edward is the representative for Jalapeno Jack.

5. Lane (who isn't Dorothy) and the Chive Cheddar representative are the same gender.

6. Arnold isn't Hart.

Solution is on page 63.
See page 7 for directions on how to use the solving chart.

	Ford	Hart	Lane	Mann	Phyne	Quali.	Very	Zen	Chive	Garlic	Jala.	Sesame
Arnold												
Barbara												
Dorothy												
Edward												
Chive												
Garlic												
Jalapeno												
Sesame												
Phyne												
Quali.												
Very												
Zen												

BINGO PLAYS 2

Directions for solving are on page 23.

Solution is on page 60.

1. The number one does not appear in row A or S, column N or G, or square LI or YI.
2. The number two does not appear on the card as a single-digit number, nor does it appear in row P or A, column O, or square LN, LG, or YN.
3. The number three does not appear in column B, square PG, LG, LO, AO, or SN, or in the winning combination.
4. The number four does not appear on the card as a single-digit number, nor does it appear in column O or square PG, LB, LI, LG, AG, or SI.
5. The number five does not appear in row Y or S, column B or N, or square LI or AG.
6. The number six does not appear in row L or square PI, AB, AO, YB, YG, SB, or SG.
7. The number seven does not appear on the card as a single-digit number, nor does it appear in row S, column N, or square PG, PO, LI, LG, YI, or YO.
8. The number eight does not appear in row P or square LN, AB, YG, SG, or SO.
9. The number nine does not appear in row P or L, column I or O, square YN, or in the winning combination.
10. Zero does not appear in row L, column N, or square PG, AO, YI, or SI.
11. The number 55 is the only same-digit double-number combination on the card.
12. The number 34 is the only consecutive-digit combination, in either order, on the card.

	B 1-15	I 16-30	N 31-45	G 46-60	O 61-75	
P						P
L						L
A			FREE			A
Y						Y
S						S
	B	I	N	G	O	

NUMBER PLACE

In these puzzles, your job is to place a number into each box so that each row across, each column down, and each small 9-box square within the larger square (there are 9 of these) will contain each number 1 through 9. Remember that no number may appear more than once in any row, column, or 9-box square; this will help you solve the puzzle.

Solutions are on page 60.

1.

		9	7		1		8	6
6		2	3	4			1	
1	3				9	4		2
9		6			5	8		3
	5	4		8	6	7		
	8		9	3			2	5
2		7	4	5		1		
4	6		8				3	7
	1			9	7	2	5	

2.

	1	7	6			4	5	
6	9			5	8			7
5			7		2	1		9
	2	6		3	5		1	
4		9		6			3	2
	3		4		7	8		6
7				1	9		8	3
3		1	2	8		9		
	5	8	3			2	4	

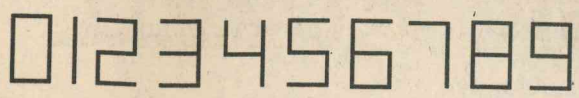
3.

9	3		8		4		7	
		2	3	6		9		4
1		4			2		8	6
2	9			5	1			7
5			9	8		1		3
	8	1	2			5	4	
		5		3	8	6	9	
7	1		6		5		3	
	6	8		4		7		2

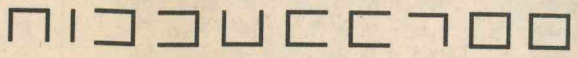
CRAZY CALCULATOR

As many of us have witnessed, calculators, computers, digital clocks, VCRs, and other electronic devices can go awry in the most unusual of ways. For example, math whiz Cal Q. Leighton was recently distressed to find his own calculator experiencing a "technical difficulty" — for some reason, it displayed only the upper portions of all the numbers on its screen! To illustrate:

NORMAL DISPLAY



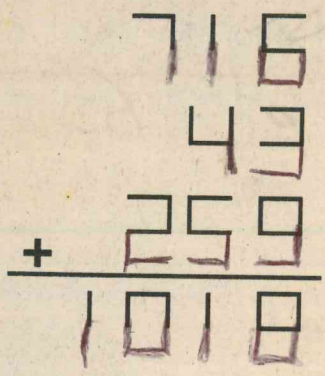
CRAZY CALCULATOR



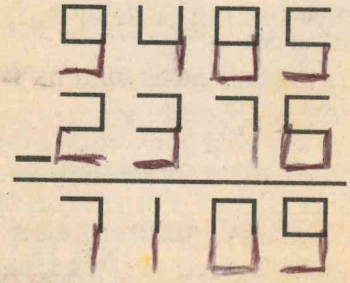
You won't be surprised to learn that Cal eventually discarded his faulty calculator and bought a replacement, but before he did, he used the machine to create a quartet of puzzles for his math-loving buddies. After completing four simple arithmetic problems, he wrote them down on another piece of paper in the crazy calculator's "upper-part-only" style of display. Yet you can see for yourself; the puzzles are reproduced below. By working together and consulting the chart above, Cal's pals were able to reconstruct all of the original problems. Can you do the same?

Solutions are on page 65.

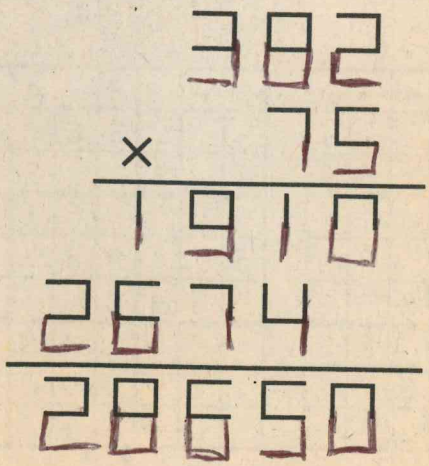
ADDITION



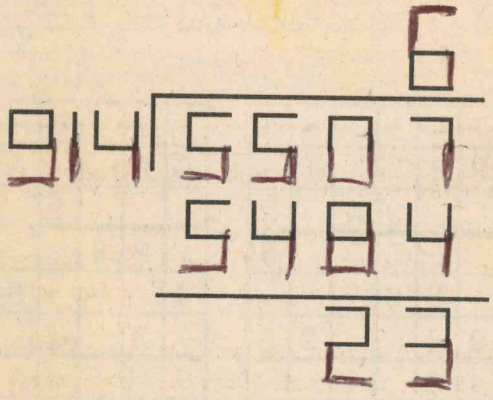
SUBTRACTION



MULTIPLICATION



DIVISION



Now these are numbers, Jenny!

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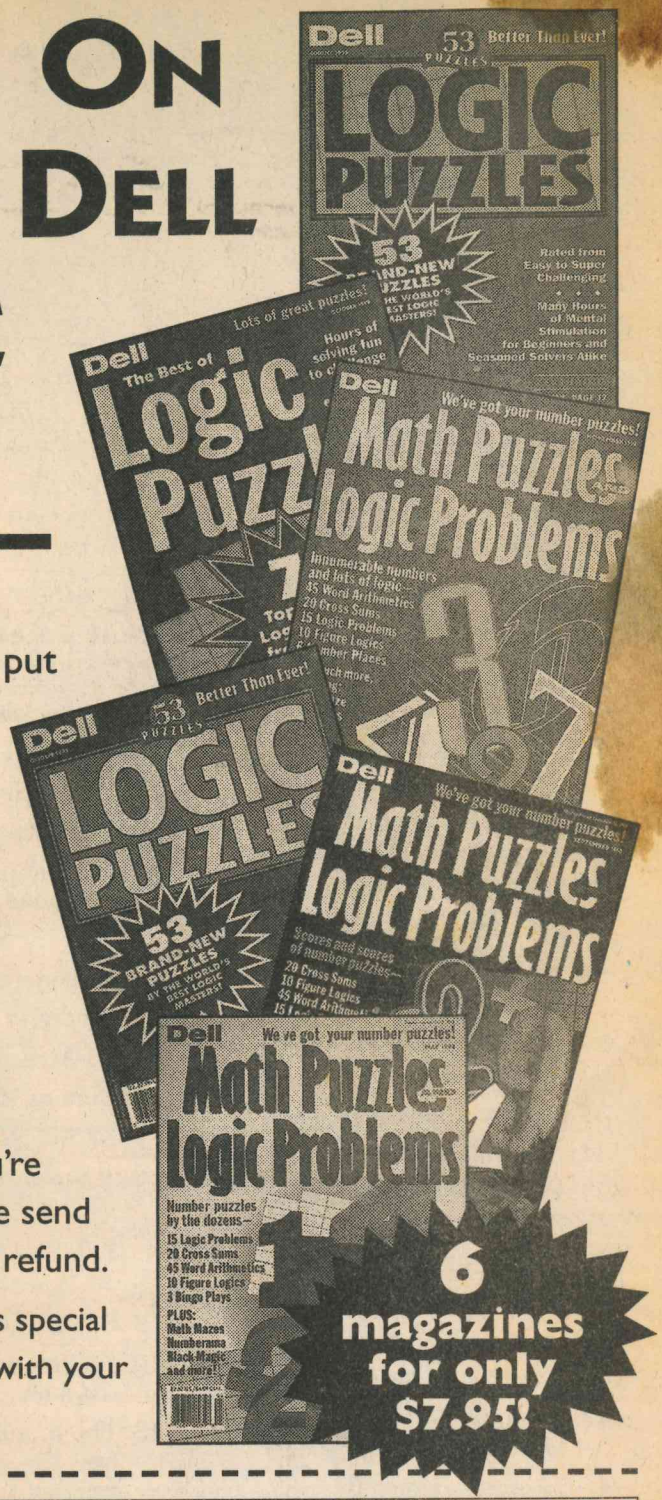

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FIGURE LOGIC 7

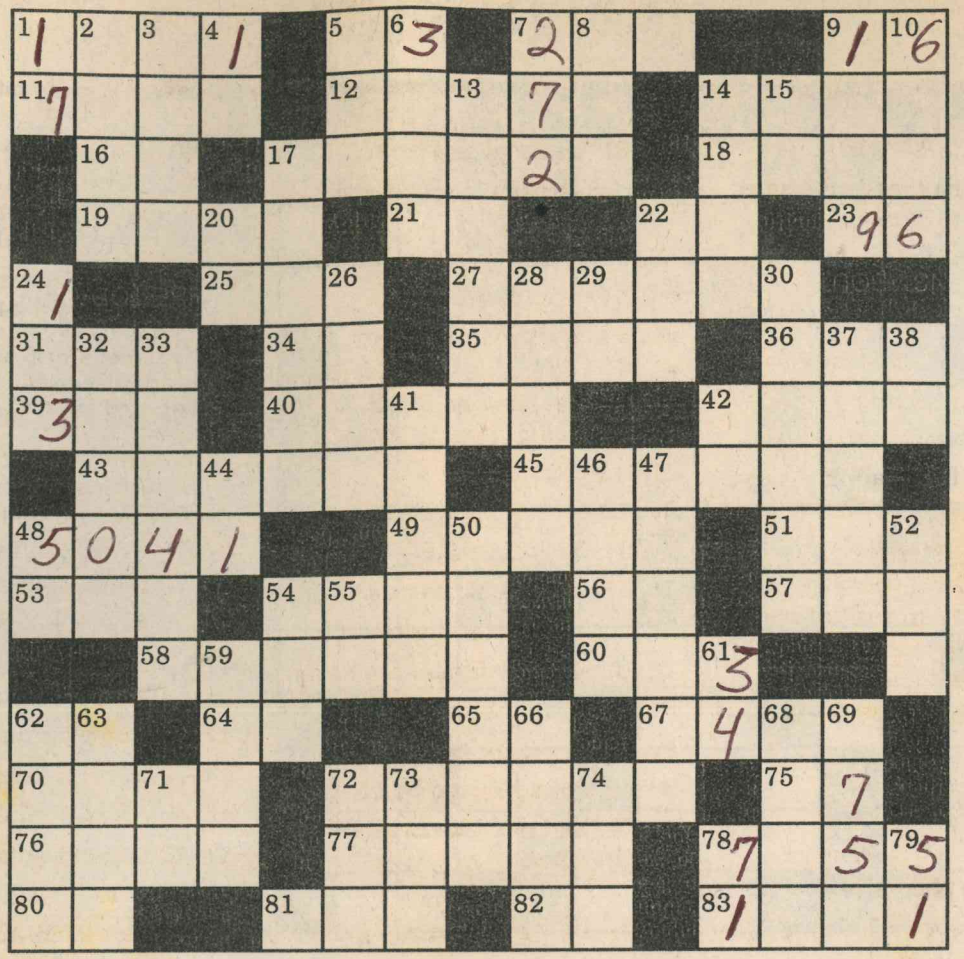
Directions for solving are on page 11. If you need help starting this puzzle, a help is given on page 66.

ACROSS

1. Number that reads the same forwards as backwards
5. One hundred less than 24-Down
7. 14-Across divided by 4-Down
9. One-sixth of 23-Across
11. Four different digits
12. 27-Across minus 45-Across
14. Number that reads the same forwards as backwards
16. 76-Across divided by 36-Across
17. The number formed by its last three digits minus the number formed by its first three digits equals 57-Across
18. Consecutive digits in reverse order
19. 18-Across divided by 18-Across's last digit
21. 16-Across minus 15-Down
22. 16-Across plus 4-Down
23. 74-Down minus 7-Down
25. Square of 44-Down
27. Two times 1-Across times 48-Down
31. 52-Down minus 7-Down
34. A square
35. Four times 4-Down times 24-Down
36. Square of 4-Down
39. 2-Down divided by 16-Across
40. Its digits total twenty-nine
42. 1-Across minus 62-Across
43. Number that reads the same forwards as backwards
45. 19-Across times the reverse of 15-Down
48. Square of 78-Down
49. 61-Down times the difference between 1-Across and 7-Across
51. Same digit three times
53. 62-Across plus 74-Down
54. 50-Down divided by 65-Across
56. 9-Across plus 48-Down
57. Its third digit is the sum of its first and second digits
58. 72-Across plus 4-Down
60. Consecutive digits in some order
62. 10-Down divided by 7-Down
64. 1-Down plus 15-Down
65. 5-Across plus 38-Down
67. Its third digit is the sum of its first and second digits
70. Its first and third digits are the same
72. 60-Across times 83-Across
75. 24-Down minus 23-Across
76. 18-Across's digits rearranged
77. Its digits total thirty-three
78. Its last two digits are the same
80. 55-Down minus 5-Across
81. 73-Down minus 21-Across
82. 62-Down divided by 16-Across
83. Its first and fourth digits are the same

DOWN

1. One more than 9-Across
2. Its digits total seventeen
3. 36-Across times 15-Down
4. Sum of 16-Across's digits
5. 82-Across plus 7-Down
6. 1-Down times the sum of 65-Across and 61-Down
7. 9-Across times 1-Down
8. 46-Down divided by 9-Across
9. Square of 15-Down
10. Its first and fourth digits are the same
13. The number formed by its first three digits minus the number formed by its last three digits equals 57-Across
14. 39-Across times 71-Down
15. 48-Down minus 9-Across
17. 57-Across times 4-Down times 61-Down
20. 1-Down plus 15-Down
22. Nine less than 52-Down
24. 1-Across divided by 4-Down
26. The number formed by its first two digits is 4-Down
28. The number formed by its first three digits divided by the number formed by its last two digits equals 61-Down
29. Number halfway between 5-Across and 44-Down
30. Square of the square of 71-Down
32. Square of 39-Across
33. The number formed by its first three digits plus the number formed by its last three digits equals 51-Across
37. 30-Down divided by 71-Down
38. 34-Across reversed
41. Number that reads the same forwards as backwards
42. 15-Down minus 38-Down
44. 15-Down minus 9-Across
46. Four different even digits
47. 13-Down minus 32-Down
48. 83-Across divided by 15-Down
50. Square of 25-Across
52. 4-Down times 48-Down
54. 41-Down divided by 36-Across
55. 36-Across minus 71-Down
59. The number formed by its last two digits is 1-Down
61. Two times 1-Down
62. Its digits total fifteen
63. 4-Down times 38-Down times 42-Down
66. The number formed by its first two digits is one less than the number formed by its last two digits
68. This and 27-Across together contain all ten digits exactly once
69. 43-Across divided by 36-Across
71. 1-Down plus 4-Down
72. Consecutive digits in some order
73. Same digits three times
74. 9-Across times 62-Across
78. 1-Down reversed
79. Three times 1-Down



71
×71
171
497
5041

Window Licker?

Solution is on page 60

The U.K. Top 20?

P.D.Q.

"P.D.Q." usually stands for "Pretty Darn Quick," but in this case, it also stands for "Problems Done Quickly"! See if you can come up with at least two correct answers to the questions below in five minutes. Anything more than two means you P.D.Q. — passed Dell's quota!

Answers are on page 65.

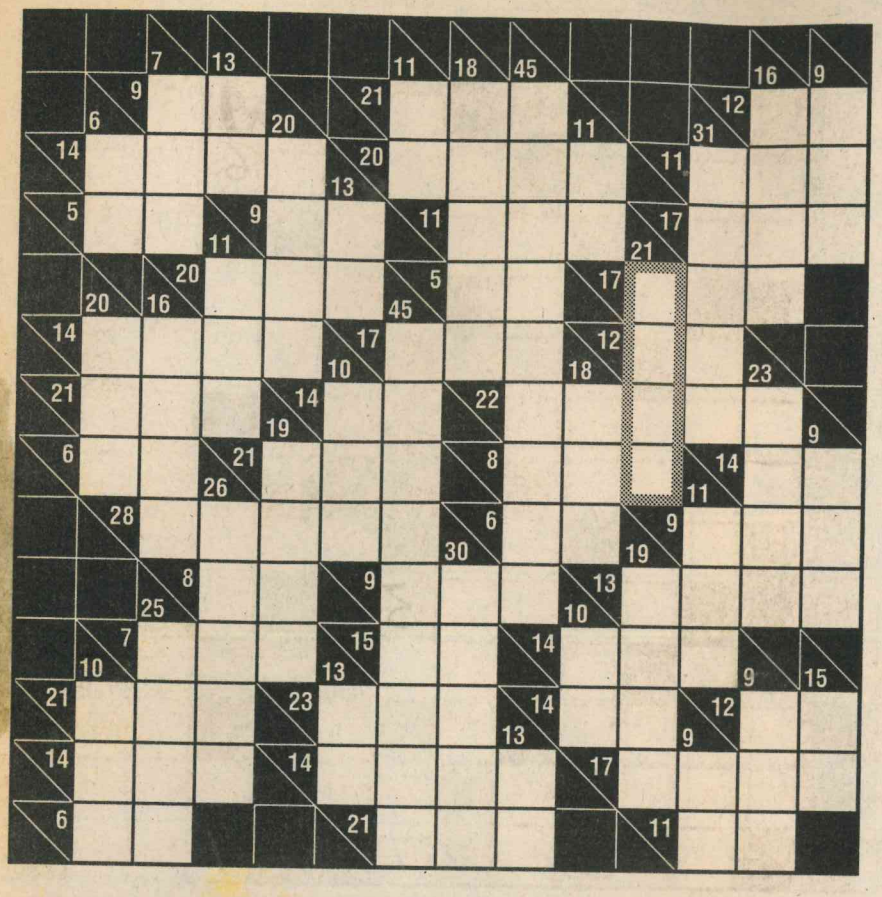
1. Three friends bought a new computer for $950. Gary contributed three times as Mark, and Charlotte put in $450. How much did Mark spend on the computer?

2. A number multiplied by 12 yields the same result as it would if 154 were added to it. What is the number?

3. The length of a rectangle is ten feet greater than its width. If the rectangle's area is 875 square feet, what is its width?

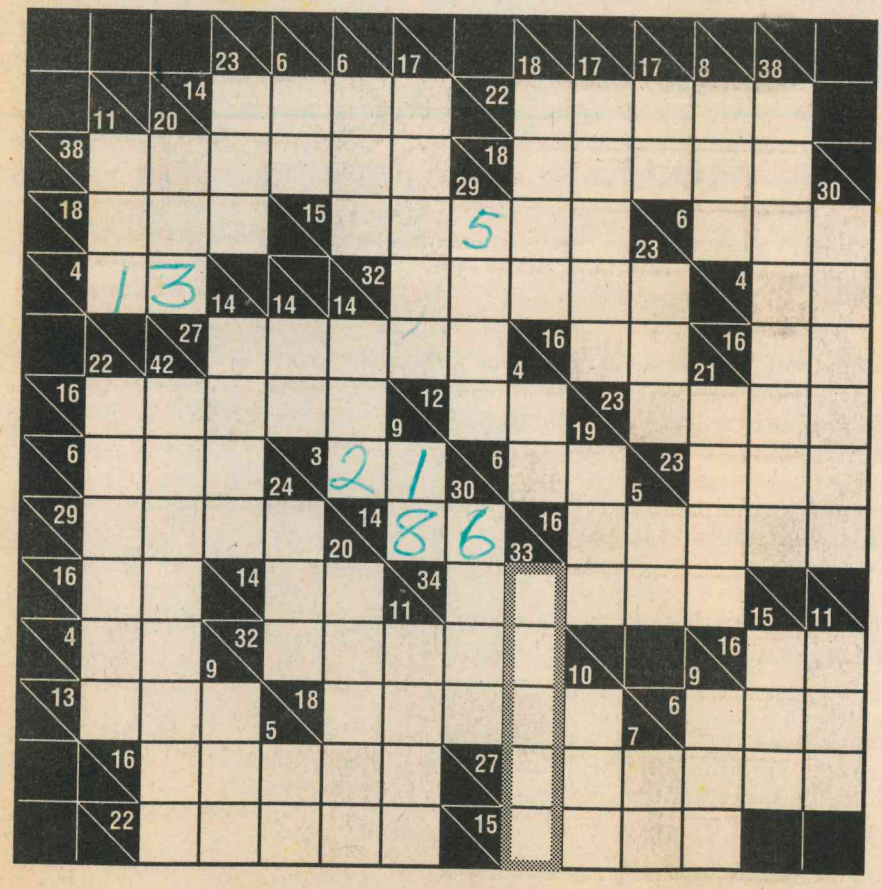
4. A certain number is composed of three digits, with the sum of those digits equaling 19. The third digit is 1/2 the first digit, and the second digit is one less than the first digit. What is the number?

CROSS SUMS



NUMBER 13

We have outlined one area in each diagram on these two pages. If you need help starting a puzzle, the digit combination to go into that area is listed on page 66.



Solutions are on page 59.

NUMBER 14

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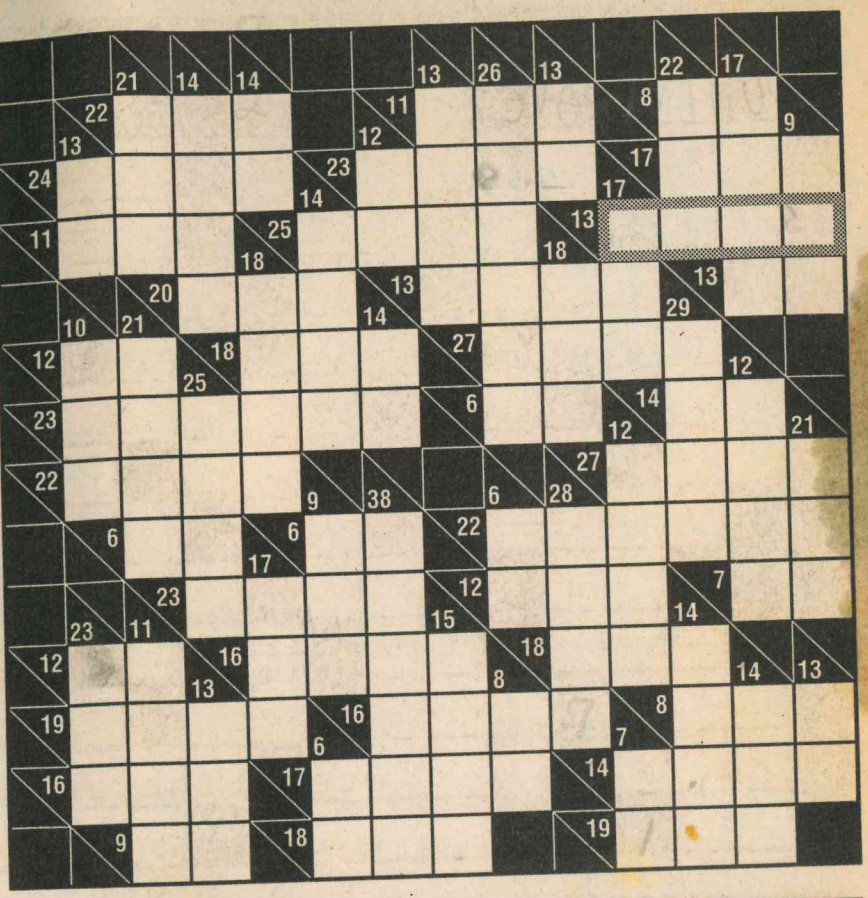
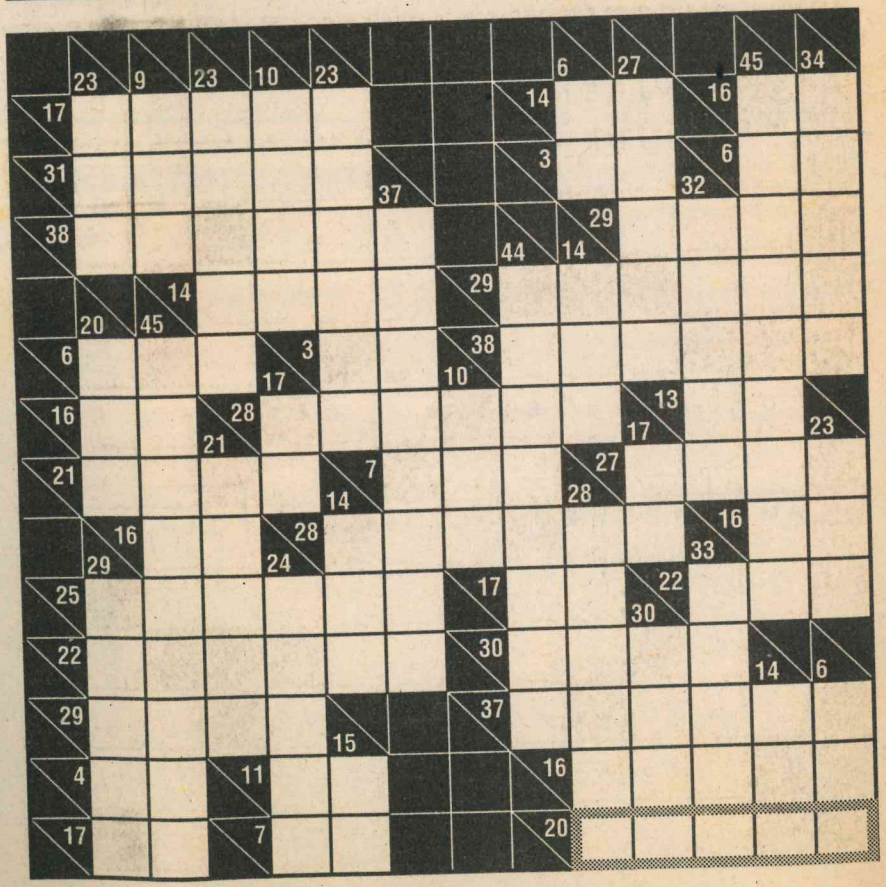
CROSS SUMS

NUMBER 15



Solutions are on page 59.

NUMBER 16



WORD ARITHMETIC

Solving directions are on page 10. Answers are on page 66.

28. UNIMPROVED

0 1 2 3 4 5 6 7 8 9

```
          569
        ROD
5638  321303
ROME | MINIMUM
     28190
     IENDU
     39330
     MDMMU
     33828
     MMEIE
      55023
      RRUIM
      50742
      RUVPI
       4281
       PIEN
```

29. _____

0 1 2 3 4 5 6 7 8 9

```
        IN
REEF | FLANGE
     YREIF
      FCAFE
      FAERG
       AEA
```

30. _____

0 1 2 3 4 5 6 7 8 9

```
        ALL
NARD | TREATER
     TUYAR
      TEYAE
      EYANE
       TARWR
       EYANE
        ULAD
```

31. WORNJACKET

0 1 2 3 4 5 6 7 8 9

```
        157
        OAK
610  957833
COW | TAKEN
    610
    COW
    3478
    NJKE
    3050
    NWAW
     4283
     JREN
     4270
     JRKW
      13
      ON
```

32. NIMBLEDOGS

0 1 2 3 4 5 6 7 8 9

```
          542
          ELM
8455  4585069
GLEE | LEGENDS
     42275
     LMMOE
      35756
      BEOED
      33820
      BBGMN
       19369
       ISBDS
       16910
       IDSIN
        2459
        MLES
```

33. MIC HO

0 1 2 3 4 5 6 7 8 9

```
          288
        COOT
2  012
LATH | CHEMICAL
1 21
 IACIE
 8 8 2
 OHODC
 7
 HLTLT
 8 1
  OEIDA
  79
  HLTLT
   7119
   THIIL
   9181
   ELIOI
    80
    OMTH
```

34. _____

0 1 2 3 4 5 6 7 8 9

```
        SHE
AMY | ARCHED
    AEDE
     ERE
     DDC
     ACYD
     AAPY
      AYA
```

35. HISGAUCOLI

0 1 2 3 4 5 6 7 8 9

```
          19
        IT
3 2 0
BASH | CLASS
     3 2 0
     BASH
     BCDSS
     5 5 0
     BOBAH
      BSOS
```

36. _____

0 1 2 3 4 5 6 7 8 9

```
        SO
BOB | BEANS
    OSCA
     JAHS
     JHGJ
      ON
```

LOGIC PROBLEM

9. WHAT'S THE SCOOP?

by W. LEE MOSS

The children in the Sunshine family get a treat every Friday night, because that is when Dad takes them to the Sweet Tooth Ice Cream Parlor for cones. If the kids have been good, they each receive two scoops instead of one; as it happens, all five (including perpetual troublemaker Patricia) were especially well-behaved last week. Knowing that each child was born during a different month of the year (including April and July) and is a different age (two, four, six, eight, or twelve), can you determine each one's age, birth month, first scoop's flavor (one was peach) and second scoop's flavor (one was black walnut)?

1. The child whose first choice was chocolate swirl is two years younger than the one born in June, who is one-half the age of the girl whose second choice was chocolate chip.
2. The boy who chose chocolate for his first scoop was born one month later in the year than the six-year-old and one month earlier in the year than Phyllis.
3. Pam is two years older than Peter, but two years younger than the child whose first scoop was rocky road.
4. Although Paul (who is twice as old as the child born in May) did not choose vanilla, vanilla was a second scoop.
5. The four-year-old child was born two months earlier in the year than the girl whose second choice was butterscotch, but later in the year than the boy whose first scoop was butter brickle.
6. One of the girls was born in August.
7. Both the eight-year-old and the child whose second choice was strawberry are girls.

Solution is on page 63.

The table below was found to be of more help in solving this Logic Problem than the usual chart.

NAME	AGE	BIRTH MONTH	FIRST SCOOP	SECOND SCOOP

LOGIC PROBLEM

10. RUMMAGE FOR MRS. MUMMAGE

by DIANE BALDWIN

Mrs. Mummage can never resist buying gifts for her pals when she attends the Hospital Auxiliary Rummage Sale held at the fairgrounds. It's always an exciting extravaganza, with bargains piled high in five enormous circus tents of different colors (one is yellow) set up in a row and numbered 1 through 5. At last month's sale, Mrs. M. visited each tent in numerical order, buying a bag of items (one contained books) for each friend for a different round dollar amount, and spending $30 in total. Can you rummage through the clues below to determine each friend's different gift, its price, and the color and number of the tent where Mrs. Mummage found it?

1. The smallest amount Mrs. Mummage spent was $3, and the largest was $10.

2. The total amount spent on the two men's gifts (which came from the first two tents) equaled the cost of the sweaters.

3. The pants for one of the men came from the tent Mrs. Mummage visited right after the red one and just before the tent where she found Holly's gift.

4. The purchase from the blue tent cost twice as much as the gift for Tom.

5. The total amount spent on John's gift and the pots equaled the total amount spent on the green tent's gift and Jane's.

6. She made a purchase for $6, then immediately got a gift in the white tent, and then immediately got the sheets.

7. Gail didn't get the $4 gift.

Solution is on page 63.

See page 7 for directions on how to use the solving chart.

	books	pants	pots	sweaters	sheets	prices					blue	green	red	white	yellow	#1	#2	#3	#4	#5
Gail																				
Holly																				
Jane																				
John																				
Tom																				
#1																				
#2																				
#3																				
#4																				
#5																				
blue																				
green																				
red																				
white																				
yellow																				

prices						

FIGURE LOGIC 8

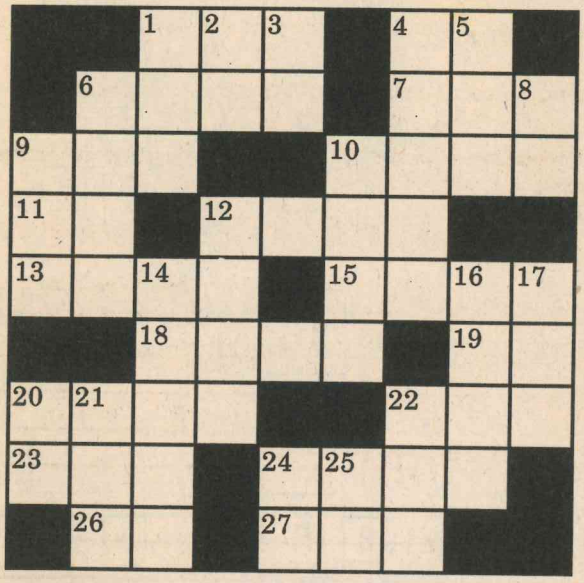
Directions for solving are on page 11. If you need help starting this puzzle, a help is given on page 66.

ACROSS

1. Two times 27-Across
4. One less than 20-Down
6. Four times 9-Down
7. 1-Across plus 9-Down
9. 5-Down minus 25-Down
10. Forty more than 13-Across
11. 3-Down plus 25-Down
12. Two times 5-Down
13. Three thousand more than 16-Down
15. 7-Across plus 5-Down
18. 12-Across plus 10-Down
19. 8-Down minus 25-Down
20. Eighty more than 15-Across
22. Consecutive digits in some order
23. Thirty less than 7-Across
24. 2-Down times 8-Down
26. Sixty more than 20-Down
27. 3-Down plus 8-Down

DOWN

1. Ten more than 22-Across
2. Seven less than 11-Across
3. Thirty more than 4-Across
4. Four times 10-Across
5. 2-Down plus 9-Down
6. Two times 20-Across
8. Forty more than 24-Down
9. Three hundred more than 1-Across
10. 6-Down plus 12-Down
12. 12-Across minus 26-Across
14. Three times 18-Across
16. 6-Across minus 5-Down
17. Two hundred less than 9-Across
20. One-third of 2-Down
21. 1-Across plus 1-Down
22. 1-Across minus 20-Down
24. 11-Across minus 20-Down
25. Four less than 4-Across



Solution is on page 60

SECRET SQUARES

The sum of the numbers in each row, column, and long diagonal of the magic number square to the right equals 49. However, each of its digits 0 through 9 has been replaced by a different letter of the alphabet. It's your job, then, to determine the numbers that should be written in the 16 squares. As a starting hint, we'll tell you that Z equals 6.

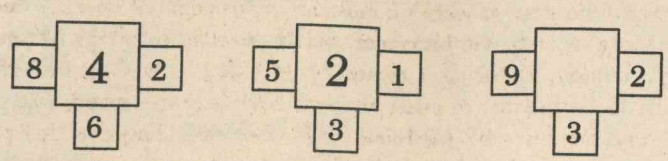
Solution is on page 60.

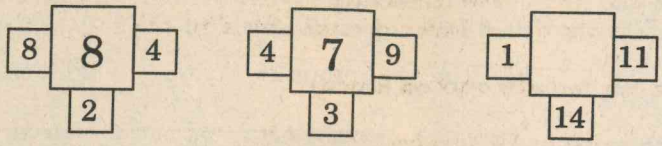
M 3	WT 10	BT 20	WZ 16
BB 22	WH 14	Z 6	N 7
F 5	J 8	BW 21	WF 15
WY 19	WN 17	B 2	WW 11

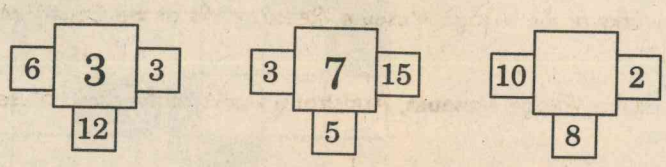
MATHEMATICAL DEDUCTION

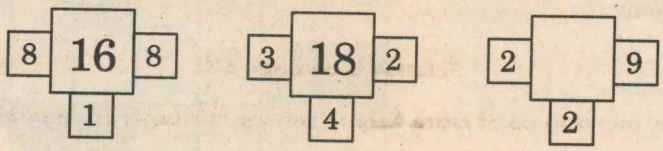
Each of the puzzles below consists of two completed sets and one uncompleted set. To solve, use math and deductive reasoning to figure out the mathematical sequence used to arrive at the numbers in the center boxes of the two complete sets, and so discover what number belongs in the blank box of the third. Each puzzle has a sequence which is carried through for all three sets. You might use addition, subtraction, multiplication, division, or other basic math functions such as those used in Figure Logics. No fractions or negative numbers are involved, and each number surrounding its center box will be used exactly once.

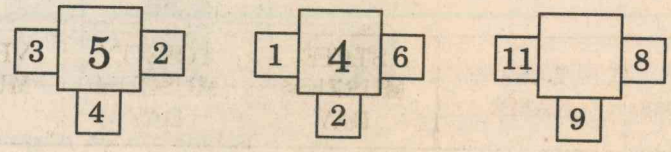
Answers are on page 65.

1. 

2. 

3. 

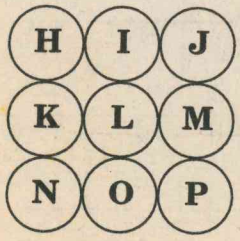
4. 

5. 

CRYPTIC MATH

Each of the nine letters stands for one of the numbers one through nine, but no two letters stand for the same number. Using the clues below, can you deduce the number represented by each letter?

Answer is on page 65.



1. Each of the diagonals (H-L-P and N-L-J) consists of three consecutive digits in some order.
2. K and N are both even.
3. P is odd.
4. L is evenly divisible by O, which is not 1.
5. M is greater than K.
6. O + P = N.

LOGIC PROBLEM

11. YOU SEE 'EM AT THE MUSEUM

by MARY POWELL

Quaintville is one of the smallest towns in the state, but also one of the oldest. A few years ago, tourists discovered its picturesque Victorian charm and soon Quaintville became one of the busiest towns in the state! To capitalize on a good thing, the town council encouraged the state to locate a museum in the heart of town. A decade later, the county opened a museum only a block away. More recently, the historical society unveiled a Village Museum between the other two. All three are open Friday through Sunday, but each is closed on Monday as well as one other day of the week. As it is necessary for exactly one guide to be present at each museum each day it is open, five guides (whose first names are Alicia, Harold, Olivia, Penny, and Reese) work part-time, with each spending one day per week at each place. After reading the information below, can you find each guide's full name and weekly work schedule?

1. The five guides are Reese who works three consecutive days, Olivia and Burke who work two (and only two) consecutive days, and two others who do not work any consecutive days at all.
2. Alicia and Norton are the only two who work on Tuesday.
3. Harold, who is not Vaughn, works on Wednesday.
4. On Saturday, Goodman works at the Village Museum, Reese works at the County Museum, and Norton works at the State Museum.
5. On Friday, Penny works at the Village Museum, Armstrong works at the State Museum, and Olivia works at the County Museum.
6. The County Museum is closed on Wednesday.

Solution is on page 63.

The table below was found to be of more help in solving this Logic Problem than the usual chart.

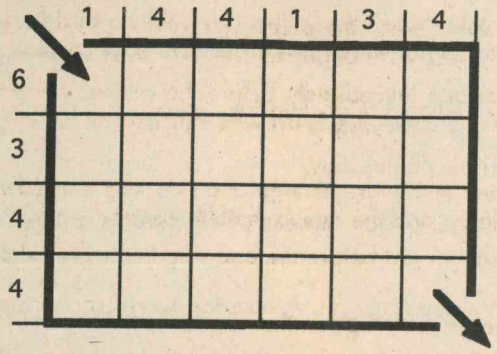
FIRST NAME	LAST NAME	STATE MUSEUM DAY	COUNTY MUSEUM DAY	VILLAGE MUSEUM DAY

MATH MAZES

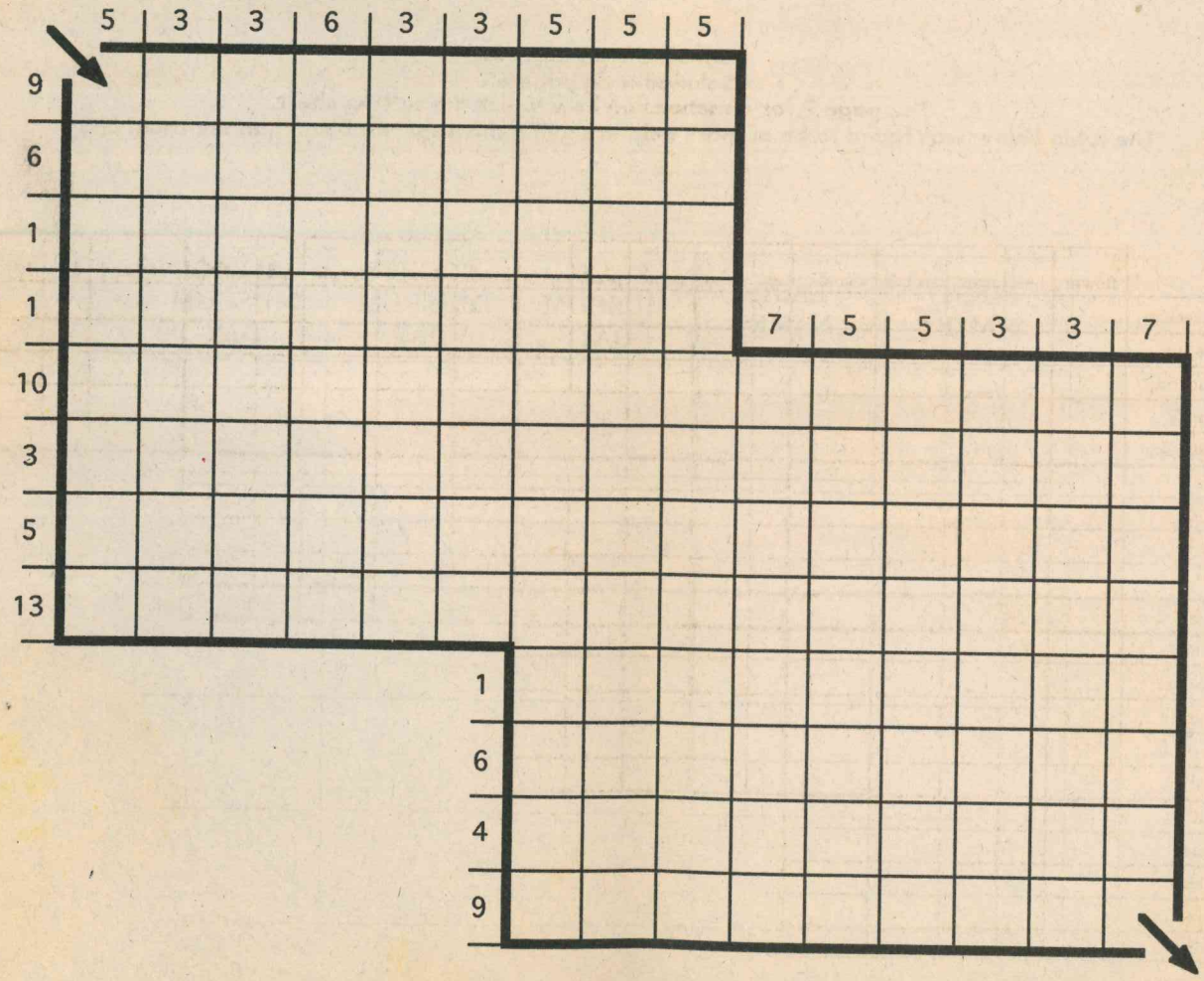
You'll have to use some deductive reasoning to make your way from start to finish in these mazes. Each maze is divided into squares; the number at the beginning of each row and column tells you exactly how many of those squares you will have to cross through in order to correctly reach the finish. For example, in Math Maze 2, the number 5 is at the beginning of the first column down; this means you will have to cross through exactly five of the squares in that column. You need not cross through all of them at once; you may leave a row or column and return to it later. For example, you might cross through the first two squares in the first column, then turn right. You would then have to return to the first column later so that you use exactly five squares before you finish the maze. No diagonal moves are allowed. Solving hint: To begin, blacken any square that you determine will not be used, and place a dot in any square that you know must be used.

Solutions are on page 60.

1.



2.



LOGIC PROBLEM

12. MEET THE SNORFS

by DAVID CHAMPLIN

Barbara Hannah produces the most popular animated show on Saturday morning television, "The Snorfs." The Snorfs, as most cartoon fans know, are little green humanoid creatures who look exactly alike, so the only way to tell them apart is by their differently colored jackets. Ms. Hannah firmly believes that children's programming has a responsibility to teach as well as entertain. Every episode, then, features five cartoons, with each starring a different Snorf who gets into trouble by doing something he or she shouldn't be doing. In fact, each Snorf's predicament is so dire that he or she can be saved only by the intervention of a friend with magical powers. From the clues below, can you describe last Saturday's show by determining each cartoon's Snorf, his or her problem (one kept eating candy all day), the magical being who fixed the problem, the Snorf's jacket color, and the order in which the five cartoons appeared?

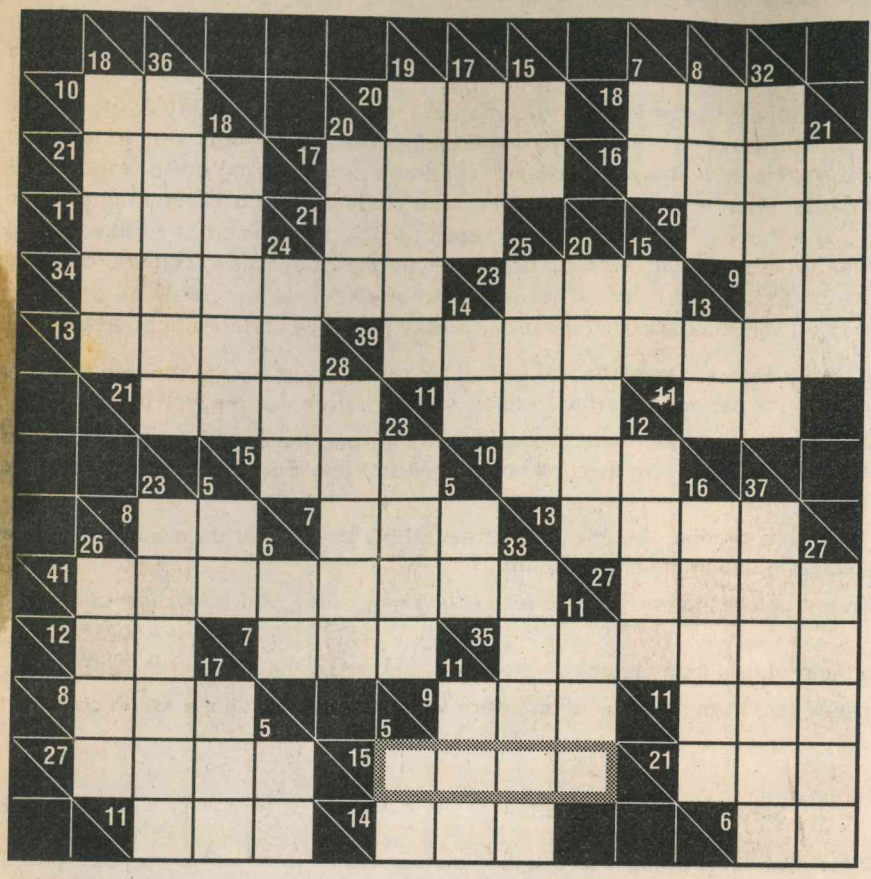
1. The cartoon with Sloppy (who didn't wear the orange or yellow jacket) was shown just before the one with the Snorf who picked a neighbor's flowers without permission, which was shown just before the one with a genie.
2. The Snorf in black was in the cartoon immediately before the one with Snorfina, and the cartoon with the wizard was shown sometime before the one about the Snorf who snitched on his friends. Note: Four different cartoons are mentioned in this clue.
3. The five Snorfs are Spiffy, the one who wore orange, the one who exceeded the speed limit on a Snorfcycle, the one who was saved by a good fairy, and the one in the fifth cartoon.
4. The cartoon with the pixie was shown just before the one with Screechy (who never lies), which was just before the Snorf in the purple jacket.
5. The Snorf in red appeared earlier in the program than Squeaky (who wasn't helped by the genie or the elf).
6. The Snorf who told a lie (who didn't seek help from the pixie) didn't wear yellow and wasn't in the fourth cartoon.

Solution is on page 63.

See page 7 for directions on how to use the solving chart.

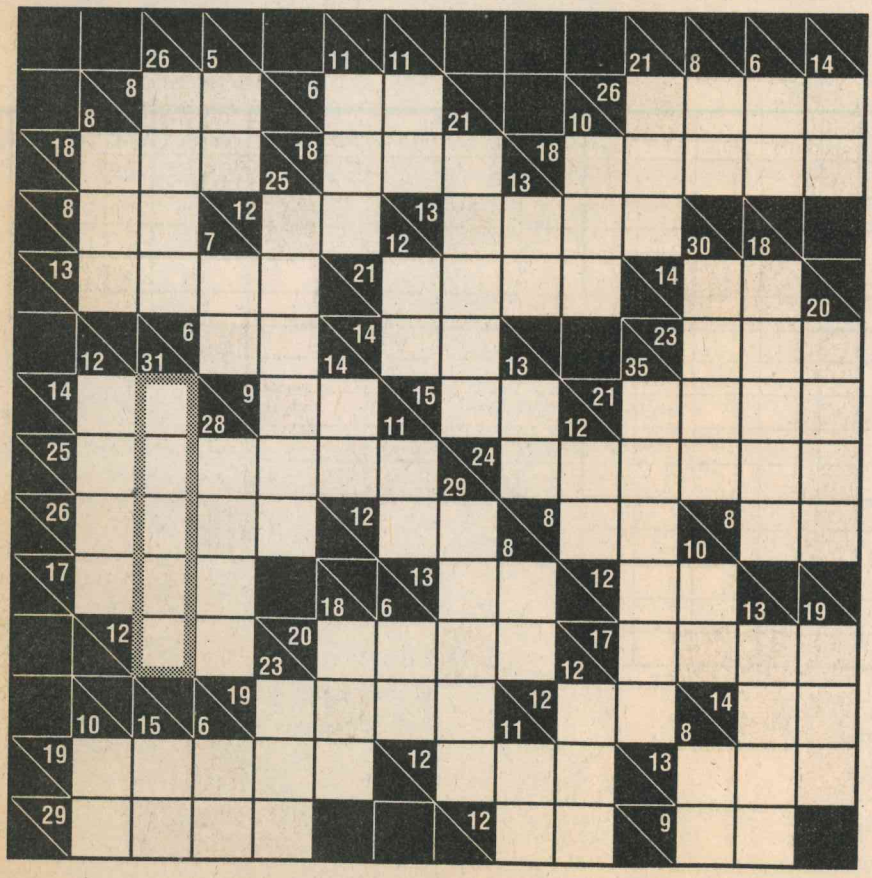
	flower	liar	over.	snitch	speeder	elf	fairy	genie	pixie	wiz.	black	orange	purple	red	yellow	1st	2nd	3rd	4th	5th
Screechy																				
Sloppy																				
Snorfina																				
Spiffy																				
Squeaky																				
1st																				
2nd																				
3rd																				
4th																				
5th																				
black																				
orange																				
purple																				
red																				
yellow																				
elf																				
fairy																				
genie																				
pixie																				
wizard																				

CROSS SUMS



NUMBER 17

We have outlined one area in each diagram on these two pages. If you need help starting a puzzle, the digit combination to go into that area is listed on page 66.



Solutions are on page 59.

NUMBER 18

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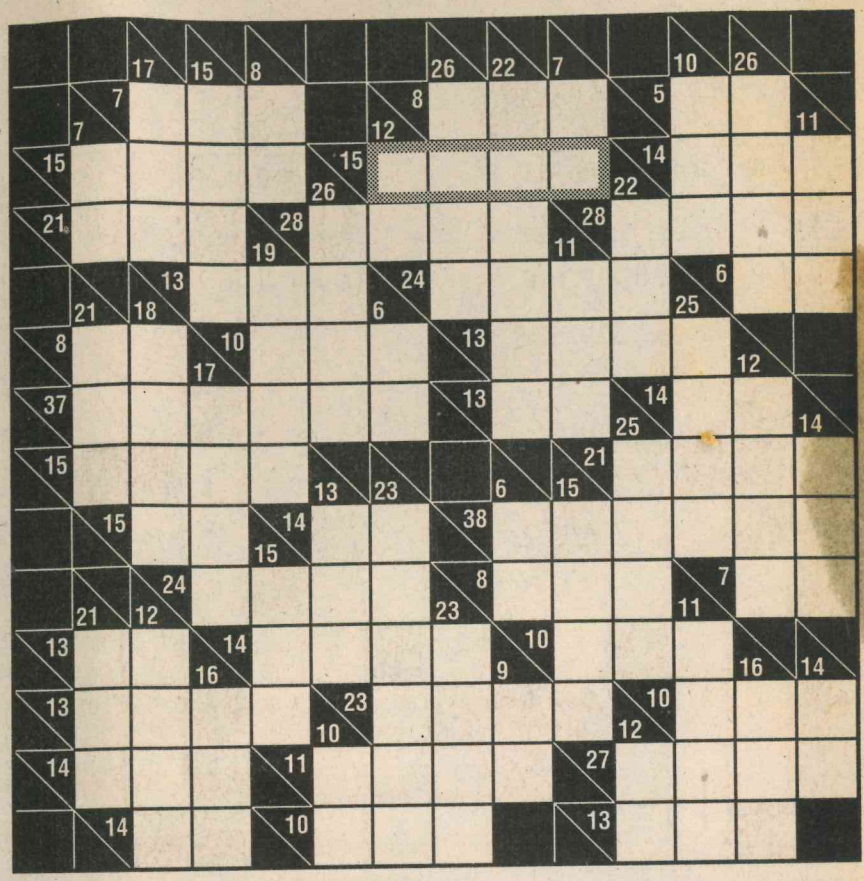
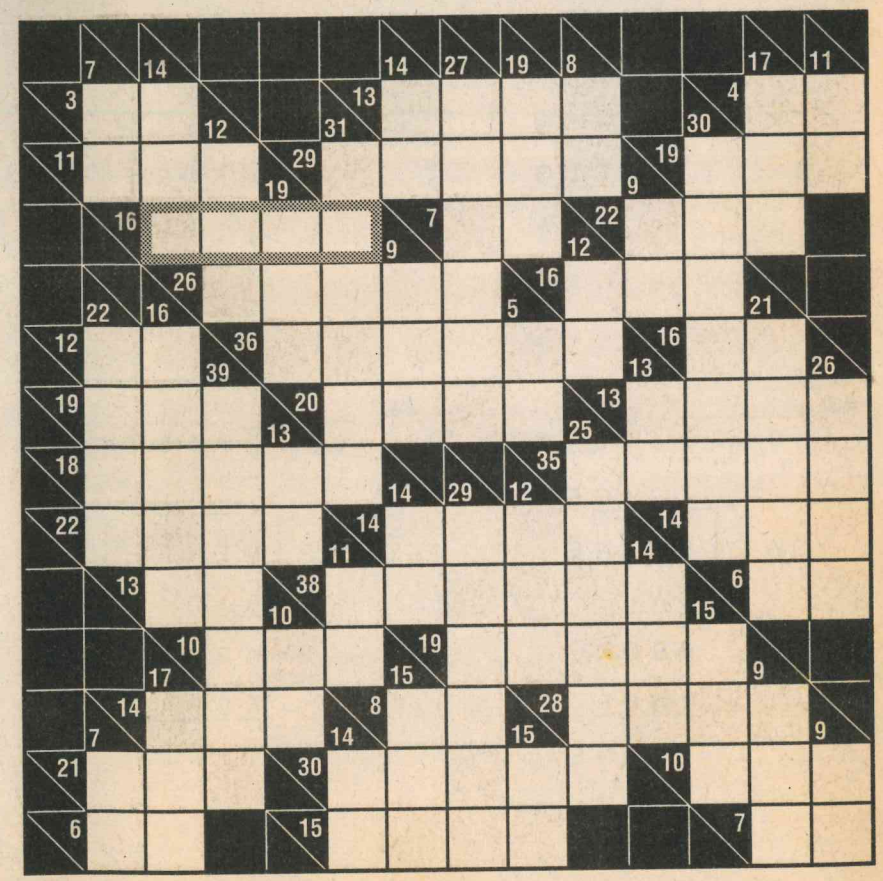
CROSS SUMS

NUMBER 19



Solutions are on page 59.

NUMBER 20



WORD ARITHMETIC

Solving directions are on page 10. Answers are on page 66.

37.

0 1 2 3 4 5 6 7 8 9

```
          TAN
    ┌─────────
TEE │ RUFFLE
    LILE
     LTOL
    LUUF
      AILE
    AANO
      ULR
```

38.

0 1 2 3 4 5 6 7 8 9

```
          ASH
    ┌─────────
NEAP│ HYPHEN
    NEAP
     NKMAE
    EHHYE
      EPMLN
    ENYEM
      ELMH
```

39. CUSTARDPIE

0 1 2 3 4 5 6 7 8 9

```
          396
          TED
    ┌─────────
5945│ 2358792
REAR│ STRIPES
    17835
    UPITR
    57529
     RPRSE
    53505
    RTRCR
    40242
     ACSAS
    35670
    TRDPC
     4572
      ARPS
```

40.

0 1 2 3 4 5 6 7 8 9

```
          LAY
    ┌─────────
LAG │ YELLOW
    YVAG
     RWLO
    RAWG
      AAOW
    RELG
      YSW
```

41.

0 1 2 3 4 5 6 7 8 9

```
          LARA
    ┌─────────
OR  │ SHARK
    OR
     LSA
    LCK
      KSR
    KOE
      LSK
    LCK
      HB
```

42.

0 1 2 3 4 5 6 7 8 9

```
          CAL
    ┌─────────
ODD │ FLASH
    AES
     CAAS
    CNLD
      CLDH
    CLNS
      EH
```

43.

0 1 2 3 4 5 6 7 8 9

```
          ICE
    ┌─────────
OWL │ SWINE
    OWL
     VSON
    VWFF
      VONE
    VFVL
      OLN
```

44.

0 1 2 3 4 5 6 7 8 9

```
          IS
    ┌─────────
TOTS│ MERIT
    RIOM
     ARWST
    ASFTO
      IFWR
```

45.

0 1 2 3 4 5 6 7 8 9

```
          WAD
    ┌─────────
ROW │ CEDARS
    CEUE
     RRRS
    RMAU
      CRM
```

LOGIC PROBLEM

13. WHO SAID IT?

by DAVID CHAMPLIN

"Honestly," sighed Ms. Jeffries to four of her fellow junior staffers at Peephole magazine, "Sometimes I think the senior editor is just an old fuddy-duddy. She actually had the gall to tell me to verify a quote that I know perfectly well comes from William Shakespeare. Now I have to go all the way down to the library on the second floor and look it up in 'Parquette's Obscure Citations' just to prove I'm right." Coincidentally, the senior editor had assigned the other four the very same task, so the quintet made the trek to the library en masse. After each took a turn with the reference book, they were all chagrined to find that each quote did indeed come not from the Bard of Avon but from someone else! From the clues below, can you figure out each staffer's full name, quote, quote's actual originator, and the order in which the five checked "Parquette's Obscure Citations"?

1. Linda used the reference book sometime before the man who looked up "Is there in truth no beauty?," who used it just before Drake (who isn't the person whose quote turned out to be written by Fanny Fern).
2. The staffer who looked up the Francis Edward Smedley quote used the reference book just before Escovaro, and the one who researched "Laugh, and the world laughs with you" used it before (but not just before) Mike. Note: Four different people are mentioned in this clue.
3. The five quotations were "Keep a stiff upper lip," the one written by Ella Wilcox, the ones Bruce and Watts checked, and the last one to be looked up.
4. Kevin used the book sometime between the staffer who looked up "The way to a man's heart is through his stomach" and the one who found George Herbert's quote.
5. Mr. Yamadoro looked up a quote just before somebody looked up Phoebe Cary's quote, which was found just before "All's fair in love and war" (which wasn't researched by Peggy).
6. Bruce and Kevin didn't use the book consecutively, and Peggy wasn't the first to use it.

Solution is on page 64.

See page 7 for directions on how to use the solving chart.

	Drake	Esco.	Jef.	Watts	Yam.	"All's"	"Is"	"Keep"	"Laugh"	"Way"	Cary	Fern	Herb.	Sme.	Wil.	1st	2nd	3rd	4th	5th
Bruce																				
Kevin																				
Linda																				
Mike																				
Peggy																				
1st																				
2nd																				
3rd																				
4th																				
5th																				
Cary																				
Fern																				
Herbert																				
Smedley																				
Wilcox																				
"All's"																				
"Is"																				
"Keep"																				
"Laugh"																				
"Way"																				

CROSSMATH

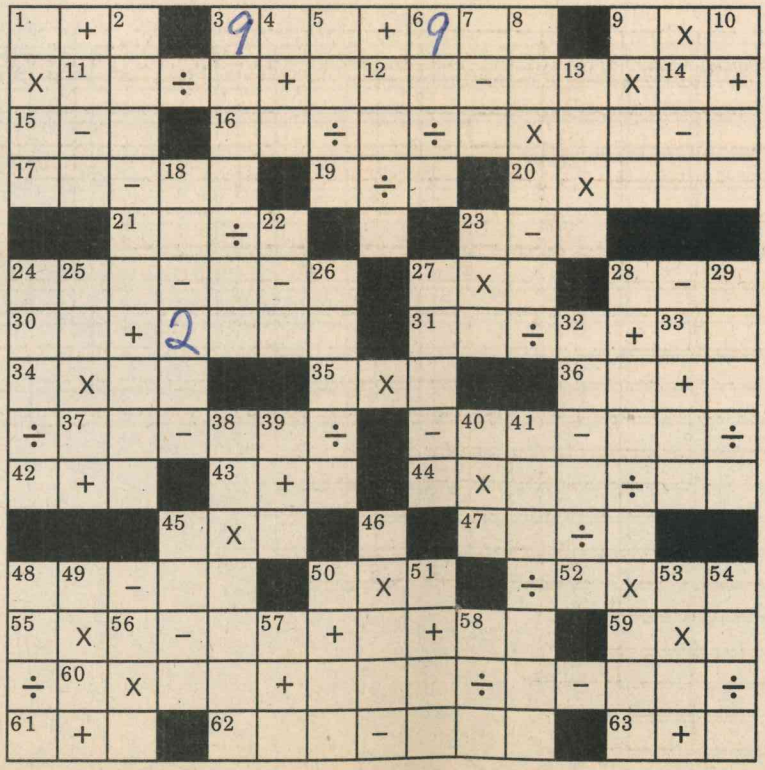
This looks like a crossword puzzle, but it involves numbers, not words. The numbers given in the clues columns are the answers to simple arithmetic problems; the numbers you enter into the diagram will form the problems which result in those answers. All the arithmetic symbols (+, −, x, ÷) have already been entered in their appropriate squares in the diagram. Use the symbols, the crossing numbers, and a bit of logic to determine the digit to enter in each blank square (one digit per square). An important thing to remember: The arithmetic is to be done in the order in which it reads, from left to right or top to bottom — for example, 1 + 2 x 3 equals 9 (1 + 2 = 3; 3 x 3 = 9). If done in any other order, your solution won't work. Arithmetic signs at the beginning or end of a problem (as in 12-Down) should be ignored. You will never use zero as the first digit of a number, though there may be zeroes used as later digits. There are no negative numbers used here, nor are there any fractions used. If you need help getting started, you'll find the correct entry for 6-Down on page 66. **Solution is on page 61.**

ACROSS

1. 7
3. 1951
9. 24
11. 1764
15. 1
16. 210
17. 14
19. 2
20. 1100
21. 29
23. 3
24. 175
27. 18
28. 2
30. 2583
31. 25
34. 234
35. 48
36. 78
37. 45
40. 44
42. 11
43. 5
44. 10
45. 24
47. 12
48. 7
50. 18
52. 66
55. 45
59. 8
60. 119
61. 10
62. 384
63. 8

DOWN

1. 72
2. 763
3. 126
4. 15
5. 9
6. 23
7. 1
8. 214
9. 96
10. 73
11. 2
12. 11
13. 69
14. 7
18. 28
22. 2
23. 36
24. 44
25. 498
26. 136
27. 348
28. 1554
29. 153
32. 14
33. 45
38. 14808
39. 13
40. 36
41. 2
45. 37
46. 441
48. 24
49. 48
50. 25
51. 84
53. 18
54. 4
56. 42
57. 16
58. 2



LOGIC PROBLEM

14. COMPANY COOKS

by MARY MARKS CEZUS

Five friends were excitedly poring over the recently published Midland City cookbook, as each had submitted a different recipe that was chosen by its editors to be printed. Knowing that no two work for the same company and no two recipes appear on the same page, can you determine each person's full name, workplace, recipe title, and recipe page number (14, 23, 42, 58, or 65)?

1. The five friends are Greg, Lytton, the Valico employee, the Shrimp Twists cook, and page 42's recipe writer.
2. O'Neill's recipe appears on a later page than Maria's (which isn't for Bliss Chicken).
3. Patrick (who isn't the Garden Soup cook) isn't the Barva worker, whose recipe appears earlier than Juanita's.
4. Neither Fields nor the employee of Sell Express submitted the recipe for Dream Cake.
5. Lytton's recipe appears later in the book than Stan's.
6. Ingram (who isn't Maria) has a recipe that appears earlier in the book than the Valico employee's recipe.
7. The recipe for Bliss Chicken appears earlier in the book than that of the Sell Express employee (who isn't Carson).
8. Greg's recipe isn't the one for Dream Cake.
9. The Garden Soup recipe appears later than the Willis & Welter employee's, but earlier than the one by Fields.
10. The recipe for Snappy Potatoes (which isn't Carson's) appears later in the book than Patrick's.
11. Lytton (who is not Juanita) doesn't work for Tri Pro (which isn't Stan's company).
12. Neither Greg nor O'Neill submitted the recipe for Garden Soup.
13. In some order, Greg's and Lytton's recipe page numbers are an odd number and an even number.

Solution is on page 64.

See page 7 for directions on how to use the solving chart.

	Carson	Fields	Ingram	Lytton	O'Neill	Barva	Sell	Tri	Valico	Willis	cake	chic.	pot.	shrimp	soup	14	23	42	58	65
Greg																				
Juanita																				
Maria																				
Patrick																				
Stan																				
14																				
23																				
42																				
58																				
65																				
cake																				
chicken																				
potatoes																				
shrimp																				
soup																				
Barva																				
Sell																				
Tri Pro																				
Valico																				
Willis																				

BONUS WORD ARITHMETIC!

We often get letters from solvers who love Word Arithmetics, but wish that they weren't getting hints from the spelled-out word(s) as they fill up the answer line. Here are four experimental problems to answer those folks; give them a whirl and write to tell us if you like them! Solve these Word Arithmetics just as you would any other (see page 10 for directions), but note that their letters WILL NOT spell out a word or phrase when arranged from 0 to 9. Don't be surprised, then, if you see something like DQXCJOMWZH as an answer! **Solutions are on page 66.**

46.

0 1 2 3 4 5 6 7 8 9

```
                32107
              A Q C S B
384  | 12329205
A J O | C Q A Q F Q S K
        1152
      C C K Q
         809
        J S F
        768
      B M J
        472
        O C Q
        384
        A J O
          2805
          Q J S K
          2688
          Q M J J
            117
            C C B
```

47.

0 1 2 3 4 5 6 7 8 9

```
                12985
              D H T R O
975  | 12660383
T E O | D H I I N A R A
        975
      T E O
       2910
       H T D N
       1950
       D T O N
        9603
        T I N A
        8775
        R E E O
         8288
         R H R R
         7800
         E R N N
          4883
          S R R A
          4875
          S R E O
              3
              R
```

48.

0 1 2 3 4 5 6 7 8 9

```
              Z A B B
E Y B W | E X Z C D V Z
        E Y B W
          Z E W D V
          Z D D X C
            B Z Z X Z
            Z D D X C
              C C V W
```

49.

0 1 2 3 4 5 6 7 8 9

```
              W Z Y W
X C I E Z | G Y X E G I A V
        G Z I Y Z
          W C G I A
          X C I E Z
            I I X A V
            G Z I Y Z
            Y G W V V
```

FIGURE LOGIC 9

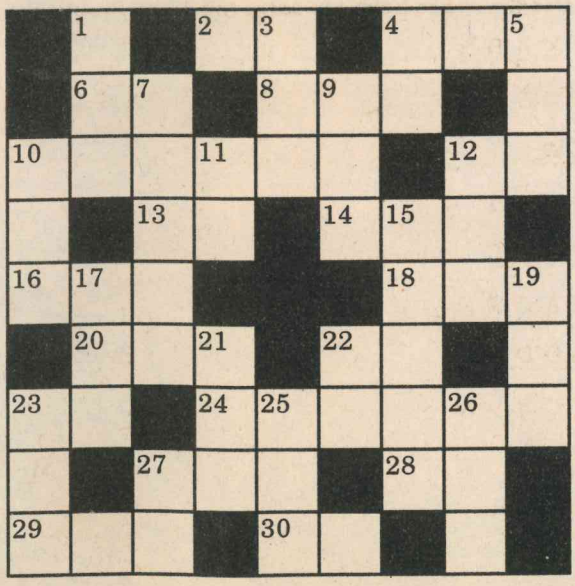
Directions for solving Figure Logics are on page 11. To complete this puzzle, though, you will also have to determine the values of the letters A, C, D, E, N, Q, R, S, and U; each represents a different digit from 1 through 9. If you need help starting this puzzle, a help is given on page 66.

ACROSS

2. 27-Down minus A
4. 27-Across minus 18-Across
6. 23-Across plus R
8. 5-Down times C
10. Its digits spell SQUARE in order
12. 28-Across times S
13. 10-Down divided by Q
14. 28-Across times D
16. 12-Across times N
18. 8-Across divided by R
20. 3-Down minus 25-Down
22. 14-Across divided by S
23. 22-Across plus 28-Across
24. 10-Across times E
27. 20-Across divided by E
28. 25-Down divided by Q
29. 4-Across times C
30. 22-Across plus N

DOWN

1. 25-Down times Q
3. 21-Down times C
4. 30-Across divided by E
5. 22-Across times R
7. 12-Across times 29-Across
9. 23-Across times U
10. 26-Down plus D
11. 4-Down minus R
12. 14-Across plus 29-Across
15. Its digits spell DANCE in order
17. 1-Down plus S
19. 2-Across times 28-Across
21. 8-Across minus 23-Down
22. 30-Across minus S
23. 16-Across plus 25-Down
25. 26-Down minus 5-Down
26. 19-Down divided by E
27. 22-Down minus U



Solution is on page 60

LOGIC PROBLEM
CHALLENGER

15. HIRE AND HIRE

by ROBERT NELSON

Eyre and Eyre, Inc. has recently been experiencing increased demand for its new product, the logicium. As a result, the company has been adding more and more people to its production line in the past months. Just last week, for example, the personnel director gave seven-part logicium aptitude tests to ten people (one was Dawson) and hired five of them. Each applicant's score in each of the seven parts was ranked 1 (best performance), 2, 3, 4, 5, 6, 7, 8, 9, or 10 (worst performance) and those seven relative placement numbers were added up to find his or her total score. The five with the five lowest total scores, then, were hired. From the following clues, can you determine each applicant's full name (the first names are Angie, Barbara, Clyde, Dirk, Edna, Frank, George, Hannah, Irene, and Jason) and total score?

1. No applicant received any two identical placement numbers and no two applicants had the same total score.
2. Angie, Mr. Farmer, and the only person with seven sequential placement numbers placed sequentially in that order (but not necessarily with sequential totals).
3. Ms. Collins' total was five less than Edna's, which was five less than someone else's.
4. Only two of the five who were hired had 1s among their placement numbers; they were also the only two hirees who had 10s.
5. Barbara, Ms. Grayson, and the only person without either a 4 and a 5 as a placement number placed sequentially in that order (but not necessarily with sequential totals).
6. Clyde's total was ten less than Mr. Jamison's.
7. Ms. Hall was two places higher than Ms. Epson, who was two places higher than Irene.
8. The lowest total was fifteen less than the highest; the applicant with the lowest total and the one with the fifth lowest are different genders, as are the ones with the fifth and sixth lowest totals, and the ones with the lowest and highest totals.
9. Ms. Baker, Dirk, and one of the only three people with six sequential placement numbers placed sequentially in that order (but not necessarily with sequential totals).
10. George's total was three less than Adams', which was three less than someone else's.
11. Jason Ingram was five places higher than Frank.

Solution is on page 65.

Use the space below to solve this Logic Problem.

FIGURE LOGIC 10

by Linda Thistle

Directions for solving Figure Logics are on page 11. The clues below are all you will need to complete this tricky puzzle. A starting hint is on page 66.

Each Down answer is composed of consecutive digits in some order.

12-Across is the square of 18-Down.

16-Across is the square of 15-Down.

14-Across is the sum of 6-Across and 26-Across.

24-Across is the sum of 1-Across and 3-Across.

4-Down is the sum of 9-Across and 21-Across.

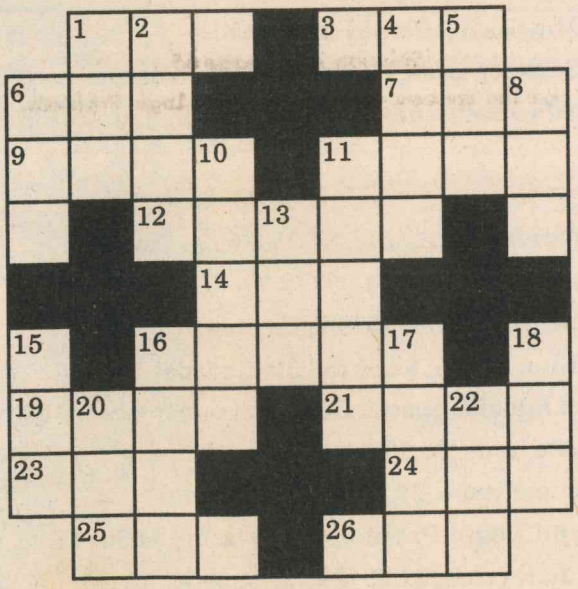
20-Down is the sum of 25-Across and 15-Down.

19-Across is six times 7-Across.

17-Down is six times 11-Across.

6-Down is greater than 23-Across.

11-Down is fifteen times 14-Across.



Solution is on page 60

DELL PUZZLE MAGAZINES ON SALE THE NEXT THREE MONTHS

Dell Crosswords Crosswords #22, $2.99 ($3.99, Canada)	**March 2**
Official Word Search Puzzles April issue, $1.99 ($2.79, Canada)	**March 2**
Dell Crossword Puzzles April issue, $1.49 ($1.99, Canada)	**March 9**
Dell Word Search Puzzles April issue, $1.99 ($2.79, Canada)	**March 9**
Dell Math Puzzles and Logic Problems May issue, $3.50 ($4.89, Canada)	**March 16**
Official Crossword Puzzles April issue, $2.50 ($3.50, Canada)	**March 16**
Pocket Crossword Puzzles April issue, $1.49 ($1.99, Canada)	**March 16**
Dell Crossword Special May issue, $3.50 ($4.95, Canada)	**March 23**
Dell Pencil Puzzles and Word Games April issue, $1.99 (2.79, Canada)	**March 23**
Dell Pencil Puzzles & Word Games Yearbook Spring issue, $2.99 ($3.99, Canada)	**March 23**
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Dell Pencil Puzzles and Word Games May issue, $1.99 ($2.79, Canada)	**April 20**
Pocket Crossword Puzzles May issue, $1.49 ($1.99, Canada)	**April 20**
Dell Word Search Puzzles May issue, .89¢ ($1.29, Canada)	**April 20**
Dell Crossword Yearbook Summer issue, $2.99 ($3.99, Canada)	**April 27**
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Official Word Search Puzzles June issue, $1.99 ($2.79, Canada)	**May 4**
Dell Crossword Puzzles June issue, $1.49 ($1.99, Canada)	**May 11**
Official Crossword Puzzles June issue, $2.50 ($3.50, Canada)	**May 11**
Dell Pencil Puzzles Vacation Special Special Edition Summer issue, $4.95 ($6.95, Canada)	**May 11**
Dell Pocket Word Search June issue, $1.99 ($2.79, Canada)	**May 11**
Dell Crossword Annual Summer issue, $2.50 ($3.50, Canada)	**May 18**
Best of Dell Math Puzzles and Logic Problems July issue, $4.95 ($6.95, Canada)	**May 18**
Pocket Crossword Puzzles June issue, $1.49 ($1.99, Canada)	**May 18**
Dell Crosswords Crosswords #23, $2.99 ($3.99, Canada)	**May 25**
Dell Crossword Special July issue, $3.50 ($4.95, Canada)	**May 25**
Dell Pencil Puzzles and Word Games June issue, $1.99 ($2.79, Canada)	**May 25**

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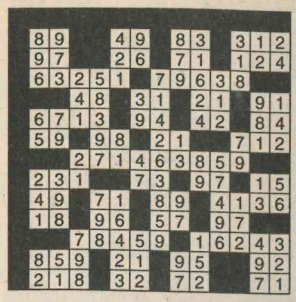

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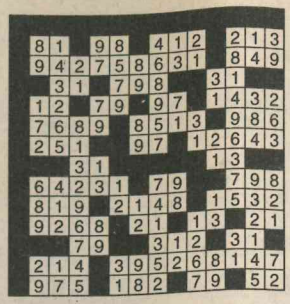

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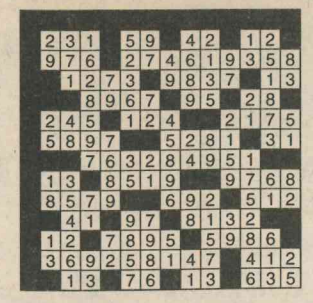

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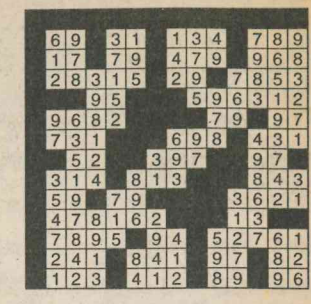

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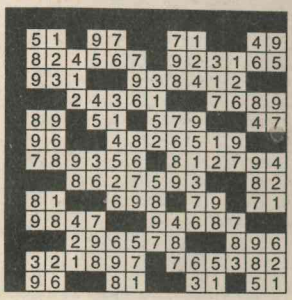

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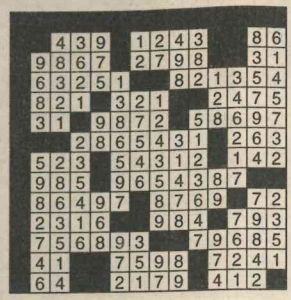

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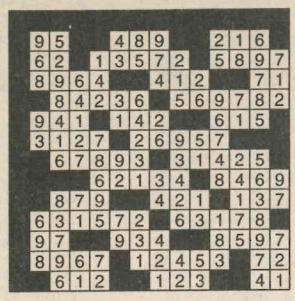

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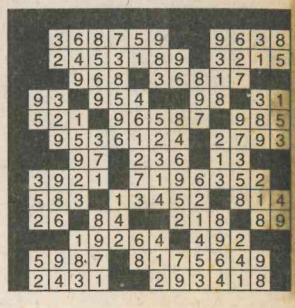

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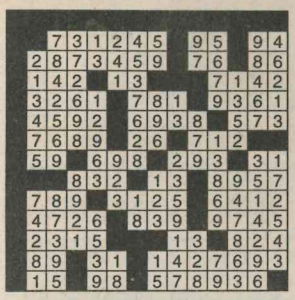

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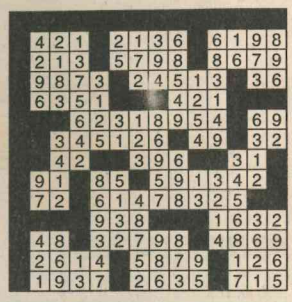

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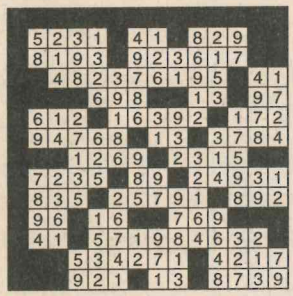

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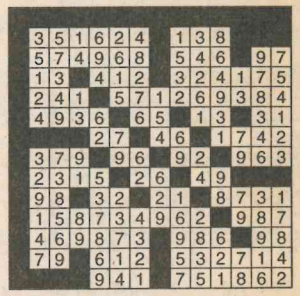

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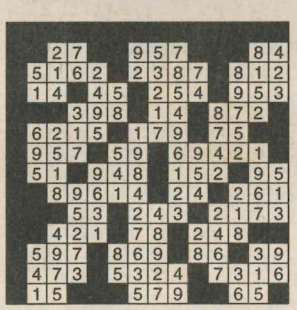

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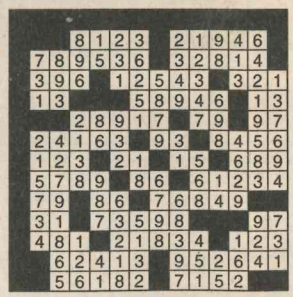

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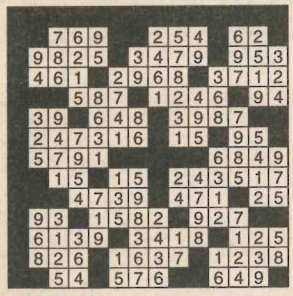

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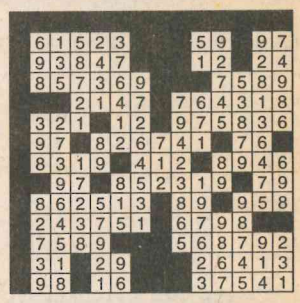

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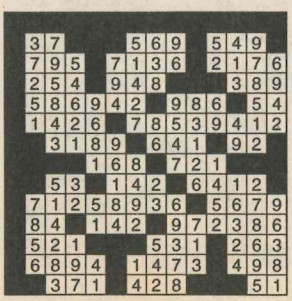

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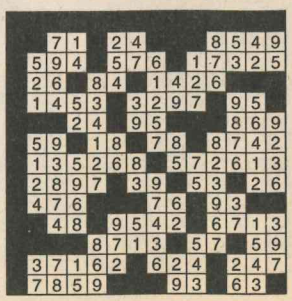

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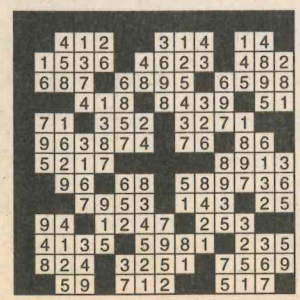

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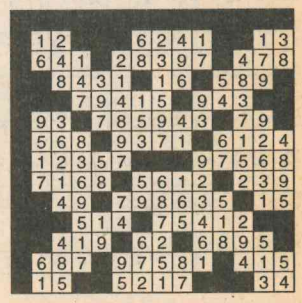


FIGURE LOGIC 1

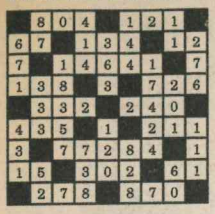


FIGURE LOGIC 2

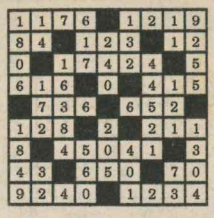
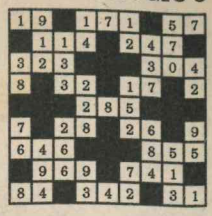


FIGURE LOGIC 3



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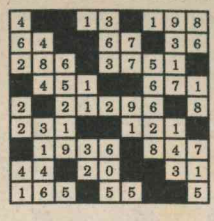

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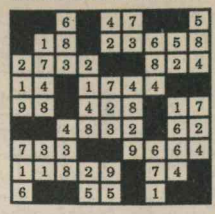

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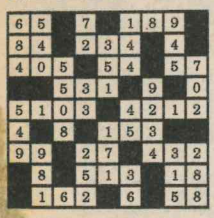
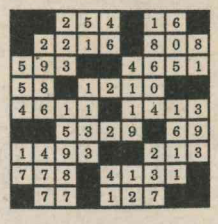


FIGURE LOGIC 8



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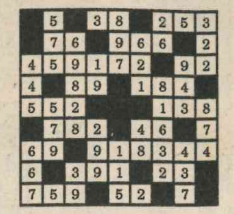
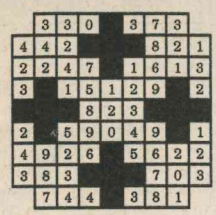
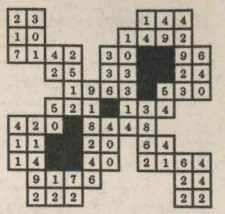


FIGURE LOGIC 10



CROSS FIGURE



SECRET SQUARES

3	10	20	16
22	14	6	7
5	8	21	15
19	17	2	11

NUMBER PLACE 1

5	4	9	7	2	1	3	8	6
6	7	2	3	4	8	5	1	9
1	3	8	5	6	9	4	7	2
9	2	6	1	7	5	8	4	3
3	5	4	2	8	6	7	9	1
7	8	1	9	3	4	6	2	5
2	9	7	4	5	3	1	6	8
4	6	5	8	1	2	9	3	7
8	1	3	6	9	7	2	5	4

NUMBER PLACE 2

2	1	7	6	9	3	4	5	8
6	9	4	1	5	8	3	2	7
5	8	3	7	4	2	1	6	9
8	2	6	9	3	5	7	1	4
4	7	9	8	6	1	5	3	2
1	3	5	4	2	7	8	9	6
7	4	2	5	1	9	6	8	3
3	6	1	2	8	4	9	7	5
9	5	8	3	7	6	2	4	1

NUMBER PLACE 3

9	3	6	8	1	4	2	7	5
8	5	2	3	6	7	9	1	4
1	7	4	5	9	2	3	8	6
2	9	3	4	5	1	8	6	7
5	4	7	9	8	6	1	2	3
6	8	1	2	7	3	5	4	9
4	2	5	7	3	8	6	9	1
7	1	9	6	2	5	4	3	8
3	6	8	1	4	9	7	5	2

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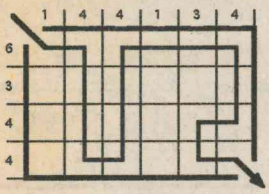
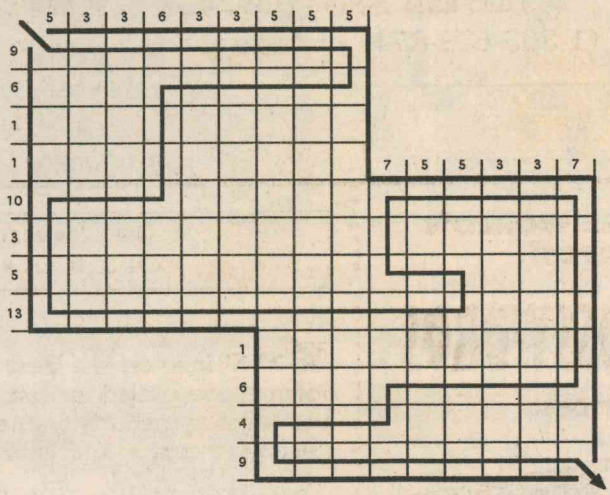
MATH MAZE 1



MATH MAZE 2



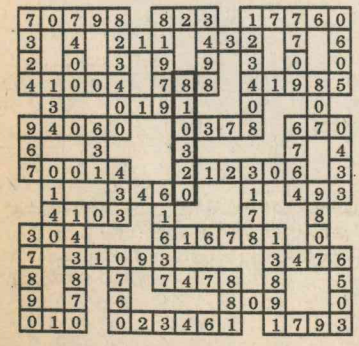
BINGO PLAYS 1

	B	I	N	G	O	
P	(8)	(28)	(32)	(60)	(72)	P
L	7	29	42	52	61	L
A	6	30	FREE	51	67	A
Y	5	16	45	58	69	Y
S	15	18	39	55	73	S
	B	I	N	G	O	

BINGO PLAYS 2

	B	I	N	G	O	
P	6	17	36	55	(61)	P
L	1	28	34	(58)	71	L
A	9	30	FREE	60	75	A
Y	14	(24)	38	47	68	Y
S	(8)	26	42	49	63	S
	B	I	N	G	O	

KROSS NUMBER 1



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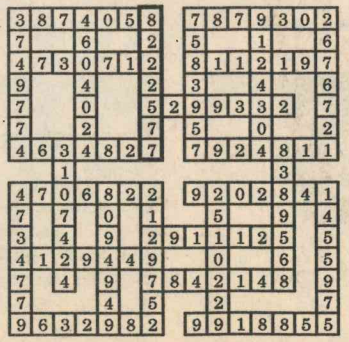
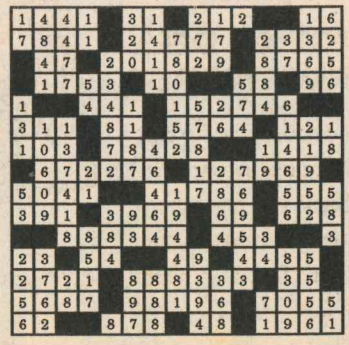
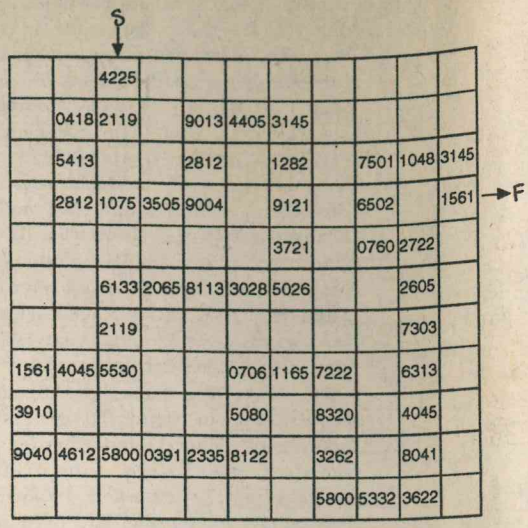


FIGURE LOGIC 7



ROUTE 13



		4225								
	0418	2119		9013	4405	3145				
	5413			2812		1282		7501	1048	3145
	2812	1075	3505	9004		9121		6502		1561
						3721		0760	2722	
		6133	2065	8113	3028	5026			2605	
		2119							7303	
1561	4045	5530			0706	1165	7222		6313	
3910					5080		8320		4045	
9040	4612	5800	0391	2335	8122		3262		8041	
							5800	5332	3622	

CROSSMATH

2	+	5		9	9	7	+	9	5	4		8	x	3
x	6	4	÷	4	+	2	2	2	−	4	2	x	9	+
3	−	2		5	6	÷	2	÷	4	x	3	1	−	7
6	4	−	5	0		8	÷	4		5	x	2	2	0
		8	7	÷	3		2		6	−	3			
1	8	6	−	7	−	4		3	x	6		8	−	6
7	3	+	2	5	1	0		5	6	÷	4	+	1	1
6	x	3	9			8	x	6			7	6	+	2
÷	6	0	−	1	5	÷		−	6	8	−	2	4	÷
4	+	7		2	+	3		8	x	5	5	÷	4	4
			3	x	8		7		6	0	÷	5		
9	8	−	9	1		6	x	3		÷	3	x	2	2
6	x	7	−	2	7	+	6	+	2	4		1	x	8
÷	6	x	2	3	+	1	3	8	÷	2	−	1	9	÷
4	+	6		4	9	9	−	1	1	5		1	+	7

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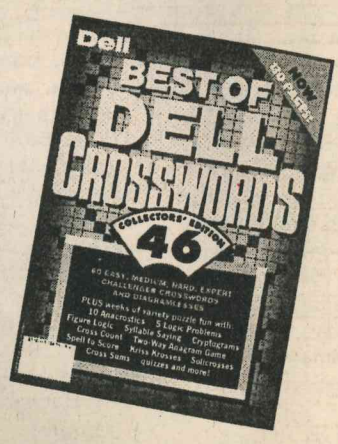

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LOGIC PROBLEM 1

There are two men and two women. One of the women is Lisa, the math major (clue 1). By clue 5, the chemistry and English majors are, in some order, a man and a woman. By elimination, the journalism major is a man. He isn't Mike (clue 3), so he is Brad. Also by clue 3, the jazz DJ is a woman. The rock and classical DJs, then, are men, and Brad is the classical DJ (clue 2). By elimination, Mike is the rock DJ. By clue 4, Gina isn't the country DJ; she is the jazz DJ, while Lisa plays country. Lisa is Rice (clue 3). Since Talbot is neither Brad (clue 2) nor Mike (clue 6), she is Gina. By clue 5, Gina isn't the chemistry major, so she studies English. By elimination, Mike is the chemistry major. He isn't Pavel (clue 5), so he is Wu. By elimination, Brad is Pavel. In summary:

Brad Pavel, classical, journalism
Gina Talbot, jazz, English
Lisa Rice, country, math
Mike Wu, rock, chemistry

LOGIC PROBLEM 2

Mary was in sometime after Colson (clue 2), who was in sometime after Denise (clue 6), who was in sometime after the sedan purchase (clue 1), which happened sometime after the purchase of the red vehicle (clue 5). The red vehicle, then, was first, the sedan second, Denise third, Colson fourth, and Mary fifth. By clue 7, Harrison didn't buy the red vehicle or the sedan and was in before Anne, so Denise is Harrison and Anne is Colson. Martin bought her convertible first and Gloria was second (clue 4). By elimination, Joan is Martin. By clue 8, Denise bought the white pickup and Mary is Brockton. By elimination, Gloria is Upton. Anne didn't buy the hatchback (clue 7); she bought the sports car and Mary bought the hatchback. By clue 2, since neither Mary nor Anne bought the black vehicle, Gloria did. The hatchback isn't green (clue 3), so the sports car is. By elimination, the hatchback is blue. In summary, in order of purchase:

Joan Martin, red convertible
Gloria Upton, black sedan
Denise Harrison, white pickup
Anne Colson, green sports car
Mary Brockton, blue hatchback

LOGIC PROBLEM 3

Wednesday's appetizer had mushrooms (clue 1). By clue 2, then, Tuesday's appetizer had licorice, Thursday's had lettuce, carrots, and chocolate sauce, and Friday's had marshmallows. Monday's appetizer had olives, Tuesday's had shrimp, and Wednesday's had peanut butter (clue 3). By clue 4, Monday's appetizer had crackers and jam and Friday's had pickles and sour cream. Tuesday's appetizer didn't have bananas (clue 2), so it had honey. By elimination, Wednesday's appetizer had bananas. In summary:

Monday: olives, crackers, jam
Tuesday: shrimp, licorice, honey
Wednesday: peanut butter, mushrooms, bananas
Thursday: lettuce, carrots, chocolate sauce
Friday: marshmallows, pickles, sour cream

LOGIC PROBLEM 4

By clue 6, the coloring book was in seat #1. The child who sat there isn't Margaret (clue 2), Alexander (clue 3), Peter (clue 7), or Holly (clue 9), so she is Barbara. By clue 1, she ate the cupcake and she isn't the eight-year-old. Barbara's age also isn't fourteen (clue 2), six (clue 8), or ten (clue 10); it is twelve. By clue 4, the girl with the puzzle book sat in #3. Since she isn't Holly (clue 9), she is Margaret. She isn't fourteen (clue 2), six (clue 8), or ten (clue 10), so Margaret is eight. By clue 1, she ate popcorn. The child in #2 is fourteen (clue 2), but isn't Peter (clue 7) or Holly (clue 9); he is Alexander. By clue 3, his book was about dinosaurs. He didn't eat the sandwich (clue 5) or pretzels (clue 7), so he ate the granola bar. By clue 9, Holly sat in #4. By elimination, Peter sat in #5. Holly ate pretzels (clue 7); Peter, then, ate the sandwich. By clue 5, he read the book of scary stories. By elimination, Holly read the book about magic. Since she is six (clue 8), Peter is ten. In summary:

#1, Barbara, twelve, coloring book, chocolate cupcake
#2, Alexander, fourteen, dinosaur book, granola bar
#3, Margaret, eight, puzzle book, popcorn
#4, Holly, six, magic book, pretzels
#5, Peter, ten, book of scary stories, peanut butter and jelly sandwich

LOGIC PROBLEM 5

The baby-quilt sewer isn't Teri (clue 3), Joyce (clue 4), Nancy (clue 5), or Penny (clue 6), so she is Dorothy. By clue 8, the Arrow quilt is the twin. Teri, then, made the double, the twin has yellow, and Dorothy made the Windmill quilt (clue 3). By clue 6, the baby quilt has pink and gray and Penny's quilt isn't the twin. Penny's, then, is the queen, the double has gold, and the twin has blue (clue 1). By clue 7, the queen has navy. The beige and green quilt (clue 2) is the king. By elimination, the queen has red and the double has brown. By clue 5, Nancy made the king and the queen is the Fields and Furrows quilt. By elimination, Joyce made the twin. Since the Zig Zag quilt isn't the king (clue 2), it is the double. By elimination, the Barn Raising quilt is the king. In summary, in order from largest to smallest:

Nancy, Barn Raising, beige and green, king
Penny, Fields and Furrows, red and navy, queen
Teri, Zig Zag, gold and brown, double
Joyce, Arrow, yellow and blue, twin
Dorothy, Windmill, pink and gray, baby

LOGIC PROBLEM 6

By clue 1, neither the accordion nor the violin was fourth, so the guitar or the harp was. Since Harrison plays neither the guitar (clue 3) nor the harp (clue 5), he or she wasn't fourth. By clue 2, Seabrook also wasn't fourth; Chapman or Kingsley was. Jordan is neither Chapman (clue 1) nor Kingsley (clue 6), so he wasn't fourth. Since Angela (clue 2) and Dwayne (clue 4) also weren't fourth, Kelly was. By clue 3, she doesn't play the guitar; Kelly plays the harp. Jordan played the week after the violinist (clue 1), Kingsley played the week after Dwayne (clue 4), and Jordan isn't Kingsley (clue 6). Neither Jordan nor Dwayne, then, plays the violin, so Angela does. Since Chapman played the week after the accordionist (clue 1) and Kingsley played the week after Dwayne (clue 4), Dwayne doesn't play the accordion; Dwayne plays the guitar. By elimination, Jordan plays the accordion. By clue 7, Angela's violin concert wasn't second. Angela, then, was first and Jordan second (clue 1). By elimination, Dwayne was third. By clue 1, Dwayne is Chapman, and by clue 4, Kelly is Kingsley. Angela isn't Seabrook (clue 2), so she is Harrison. By elimination, Jordan is Seabrook. In summary, in order of performance:

Angela Harrison, violin
Jordan Seabrook, accordion
Dwayne Chapman, guitar
Kelly Kingsley, harp

LOGIC PROBLEM 7

Position #5's item wasn't the ring (clue 1), doll or whistle (clue 4), or train (clue 5), so it was the dish. By clue 2, a man found the dish. He is neither Hank (clue 1) nor Darrell (clue 7); he is Roger. The 8:06 item wasn't at #3 (clue 6), or #1 or #2 (clue 7). Since Darrell didn't find his item at #2 (clue 4), the 8:06 item also wasn't at #4 (clue 7). The 8:06 item, then, was at #5. The 8:43 item wasn't the ring (clue 1), doll (clue 3), or train (clue 5), so it was the whistle. The 9:12 item wasn't the ring (clue 1) or the doll (clue 3); it was the train. By clue 8, Anita's time wasn't 9:12. It was 9:37, then, and the doll's was 10:18 (clue 3). By elimination, the ring's time was 9:37. By clue 4, since Darrell found neither the doll nor the whistle, he found the train. The item at #2 wasn't the ring (clue 1), doll (clue 3), or train (clue 4), so it was the whistle. The item at #4 was neither the ring (clue 1) nor the doll (clue 4); it was the train. By clue 1, since the ring wasn't at #3, it was at #1. By elimination, the doll was at #3. Belinda didn't find her item at #3 (clue 6), so she found it at #2. By elimination, Hank found his at #3. In summary:

#1, Anita, silver napkin ring, 9:37
#2, Belinda, ceramic whistle, 8:43
#3, Hank, pottery doll, 10:18
#4, Darrell, pewter toy train, 9:12
#5, Roger, glass dish, 8:06

LOGIC PROBLEM 8

There are two men and two women. Ford is a woman (clue 1), and Edward is the representative for Jalapeno Jack (clue 4). By clue 5, Lane and the Chive Cheddar representative are the same gender. If they were both men, Edward would be Lane and Arnold would be the Chive Cheddar representative. Arnold wouldn't be Mann (clue 3), so he would be Hart. However, this contradicts clue 6. Therefore, Lane and the Chive Cheddar representative aren't men; they are women. Ford, then, represents Chive Cheddar. By clue 5, since Lane isn't Dorothy, she is Barbara. By elimination, Ford is Dorothy. Arnold isn't Hart (clue 6), so he is Mann, while Edward is Hart. By clue 3, Mann is the representative for Garlic Gouda. By elimination, Lane is the representative for Sesame Swiss. The Very Dairy representative isn't Ford, Hart, or Lane (clue 1); he is Mann. By clue 2, Hart is the Zen Glen representative. QualiCreamery doesn't make Sesame Swiss (clue 1), so it makes Chive Cheddar. By elimination, Phyne Farms makes Sesame Swiss. In summary:

Arnold Mann, Very Dairy, Garlic Gouda
Barbara Lane, Phyne Farms, Sesame Swiss
Dorothy Ford, QualiCreamery, Chive Cheddar
Edward Hart, Zen Glen, Jalapeno Jack

LOGIC PROBLEM 9

The girls' second scoops were chocolate chip (clue 1), butterscotch (clue 5), and strawberry (clue 7). By clue 4, Paul's second scoop wasn't vanilla, so it was black walnut. By elimination, Peter's second scoop was vanilla. A girl is eight (clue 7), and Peter is either two or four (clue 3). If he were two, also by clue 3, Pam would be four. By clue 4, then, Paul would be twelve and the six-year-old, a girl, would be the May baby. A boy would be the June baby (clue 2), but this contradicts clue 1. Therefore, Peter isn't two; he is four. By clue 3, Pam is six, and the eight-year-old girl's first scoop was rocky road. Paul, then, is twelve, and Pam is the May baby (clue 4). By clue 1, Peter is the June baby, the eight-year-old girl's second scoop was chocolate chip, and the two-year-old girl's first scoop was chocolate swirl. Peter's first scoop was chocolate and Phyllis is the July baby (clue 2). By clue 6, Patricia is the August baby. By elimination, Paul is the April baby. His first scoop was butter brickle and Patricia's second scoop was butterscotch (clue 5). Pam's second scoop, then, was strawberry, Phyllis is eight, and Patricia is two. By elimination, Pam's first scoop was peach. In summary:

Pam, six, May, peach, strawberry
Patricia, two, August, chocolate swirl, butterscotch
Paul, twelve, April, butter brickle, black walnut
Peter, four, June, chocolate, vanilla
Phyllis, eight, July, rocky road, chocolate chip

LOGIC PROBLEM 10

$30 was spent in total, and each gift cost a different round dollar amount. By clue 1, $3 was the smallest amount and $10 was the greatest. Since a third amount was $6 (clue 6), and a fourth amount was $4 (clue 7), the fifth amount was $7. By clue 4, the blue tent's gift cost $6 and Tom's cost $3. John's gift, then, cost either $4 or $7, the sweaters for a girl cost either $7 or $10, and the men's gifts were in tents #1 and #2 (clue 2). By clue 3, tent #1 was red, men's pants were in #2, and Holly's gift was in #3. Neither of the men's gifts cost $6, so the $6 gift was in tent #3, the white tent was #4, and the sheets were in #5 (clue 6). By elimination, Gail's and Jane's gifts, in some order, were in #4 and #5. If John's gift cost $7, by clue 2, the sweaters would have cost $10. Since Gail's gift would have cost $10 and Jane's $4 (clue 7), Gail's sweaters would have been in #4 and Jane's gift in number #5. However, clue 5, then, would not be satisfied. Therefore, John's gift didn't cost $7; it cost $4. By clue 2, the sweaters cost $7, so they were in tent #4. By elimination, the sheets cost $10. The pots cost $6, the green tent's gift $3, and Jane's gift $7 (clue 5). Tom's gift, then, was in #2 and John's in #1. By elimination, John got the books and Gail got the sheets from the yellow tent. In summary:

#1, John, books, $4, red
#2, Tom, pants, $3, green
#3, Holly, pots, $6, blue
#4, Jane, sweaters, $7, white
#5, Gail, sheets, $10, yellow

LOGIC PROBLEM 11

Each guide works at each museum on one day a week, no one works on Monday, and all three museums are open Friday through Sunday. Reese works on three consecutive days (clue 1), including Saturday at the County Museum (clue 4). Reese, then, works on Friday, and on either Thursday or Sunday. By clue 5, Reese is Armstrong who works Friday at the State Museum. Norton isn't Alicia and works on Tuesday (clue 2). By clue 4, Norton works Saturday at the State Museum. If Norton were Harold, Norton's other workday would be Wednesday (clue 3); if Norton were Olivia or Penny, Norton's other workday would be Friday (clue 5). In either case, by clue 1, Norton and Burke are the two who work consecutive days, so Olivia is Norton. She works Friday at the County Museum (clue 5), so she works Tuesday at the Village Museum. By clue 1, Goodman and Vaughn are the two who work no consecutive days. Since Goodman works at the Village Museum on Saturday (clue 4), he or she also works on Tuesday and Thursday. By clue 2, Alicia is Goodman. Harold isn't Vaughn (clue 3); he is Burke, while Penny is Vaughn. By clue 5, Penny works Friday at the Village Museum. Neither Goodman nor Norton works on Sunday, so the other three do. Reese, then, works Sunday at the Village Museum. By clue 3, another of Harold's workdays is Wednesday. Since his other workday isn't Tuesday (clue 2), Saturday (clue 4), or Friday (clue 5), it is Thursday. Penny's other workday isn't Thursday or Saturday (clue 1) or Tuesday (clue 2); it is Wednesday. By clue 6, Penny doesn't work at the County Museum on Wednesday, so she works there on Sunday and at the State Museum on Wednesday. Since on Sunday Penny works at the County Museum and Reese works at the Village Museum, Harold's Sunday workplace is the State Museum. His Wednesday workplace isn't the County Museum (clue 6); it is the Village Museum, and his Thursday workplace is the County Museum. Harold works at the County Museum on Thursday, so Alicia's Thursday workplace is the State Museum. By elimination, Alicia works at the County Museum on Tuesday. In summary, with the State Museum, County Museum, and Village Museum days listed in that order:

Reese Armstrong, Friday, Saturday, Sunday
Harold Burke, Sunday, Thursday, Wednesday
Alicia Goodman, Thursday, Tuesday, Saturday
Olivia Norton, Saturday, Friday, Tuesday
Penny Vaughn, Wednesday, Sunday, Friday

LOGIC PROBLEM 12

The fifth helper wasn't the wizard (clue 2), fairy (clue 3), or pixie (clue 4), so he or she was the genie or the elf. By clue 5, since Squeaky's helper wasn't the genie or the elf, Squeaky wasn't fifth. Sloppy (clue 1), Spiffy (clue 3), and Screechy (clue 4) also weren't fifth; Snorfina was. By clue 2, the Snorf in black was fourth. The Snorf in purple was third or fifth (clue 4). If he or she was third, also by clue 4, the pixie would have been first and Screechy second. The wizard would have been second and the snitch third (clue 2). Snorfina's jacket wouldn't have been orange (clue 3) or red (clue 5), so it would have been yellow. Since Snorfina wouldn't have been the flower picker (clue 1), speeder (clue 3), or liar (clue 6), she would be the overeater. The liar wouldn't have been second (clue 4) or first or fourth (clue 6), but this would then leave no Snorf to be the liar. Therefore, the Snorf in purple wasn't third; she was fifth. By clue 4, the pixie was third and Screechy fourth. The third Snorf's jacket wasn't red (clue 5), so it was orange or yellow. By clue 1, then, Sloppy was second, the flower picker third, and the genie fourth. By elimination, the elf was fifth. Since Squeaky wasn't first (clue 5), he or she was third and Spiffy was first. By clue 1, Sloppy's jacket wasn't orange or yellow; it was red. The wizard was first and the snitch second (clue 2). By elimination, the good fairy was second. By clue 3, Squeaky's jacket was orange and the speeder was fourth. By elimination, Spiffy's jacket was yellow. Spiffy wasn't the liar (clue 6), so Snorfina was. By elimination, Spiffy was the overeater. In summary, in order:

Spiffy, overeater, wizard, yellow
Sloppy, snitch, good fairy, red
Squeaky, flower picker, pixie, orange
Screechy, speeder, genie, black
Snorfina, liar, elf, purple

LOGIC PROBLEM 13

Neither Drake (clue 1) nor Escovaro (clue 2) was first, so Jeffries, Watts, or Yamadoro was. Since Mike (clue 2), Kevin (clue 4), and Peggy (clue 6) weren't first, Bruce or Linda was. If Bruce were first, he wouldn't be Jeffries (introduction) or Watts (clue 3); he would be Yamadoro. By clue 5, the second quote would have been Cary's and the third would have been "All's." The fifth quote wouldn't have been "Is" (clue 1), "Laugh" (clue 2), or "Keep" (clue 3), so it would have been "Way." Since "Way" wouldn't have been Smedley's (clue 2), Wilcox's (clue 3), or Herbert's (clue 4), it would have been Fern's. However, this schedule would leave no room for clue 1's Linda, "Is," and Drake. Therefore, Bruce wasn't first; Linda was. Neither Watts (clue 3) nor Yamadoro (clue 5) was fifth, so Jeffries, Drake, or Escovaro was. Since Bruce (clue 3) and Kevin (clue 4) weren't fifth, either Mike or Peggy was. If Mike were fifth, he wouldn't be Jeffries (introduction) or Escovaro (clue 2); he would be Drake. By clue 1, "Is" would have been fourth. Mr. Yamadoro would have been third, Cary's quote fourth, and "All's" fifth (clue 5). Peggy wouldn't have been fourth (clue 1) or third (clue 5), so she would have been second. By elimination, Bruce and Kevin would have been third and fourth, in some order. However, this contradicts clue 6. Therefore, Mike wasn't fifth; Peggy was. Since she didn't look up "Is" (clue 1), "Laugh" (clue 2), "Keep" (clue 3), or "All's" (clue 5), she looked up "Way." By clue 5, Mr. Yamadoro was second, Cary's quote third, and "All's" fourth. "Way" wasn't Smedley's (clue 2), Wilcox's (clue 3), or Herbert's (clue 4), so it was Fern's. By clue 6, Bruce and Kevin were second and fourth, in some order; Mike, then, was third. Linda looked up "Laugh," Smedley's quote was fourth, and Peggy is Escovaro (clue 2). Linda, then, is Ms. Jeffries. By clue 3, "Laugh" was Wilcox's quote. By elimination, the second quote was Herbert's. Since Kevin was fourth (clue 4), Bruce was second. By clue 3, Mike looked up "Keep" and Kevin is Watts. By elimination, Bruce looked up "Is" and Mike is Drake. In summary, in order of reference:

Linda Jeffries, "Laugh and the world laughs with you," Ella Wilcox
Bruce Yamadoro, "Is there in truth no beauty?," George Herbert
Mike Drake, "Keep a stiff upper lip," Phoebe Cary
Kevin Watts, "All's fair in love and war," Francis Edward Smedley
Peggy Escovaro, "The way to a man's heart is through his stomach," Fanny Fern

LOGIC PROBLEM 14

The recipe on 65 isn't Maria's (clue 2), Stan's (clue 5), or Patrick's (clue 10), so it is either Greg's or Juanita's. If it were Greg's, the recipe on 65 wouldn't be for shrimp (clue 1), chicken (clue 7), cake (clue 8), or soup (clue 12); it would be for potatoes. Greg wouldn't be Lytton (clue 1), Ingram (clue 6), Carson (clue 10), or O'Neill (clue 12); he would be Fields. Since his company wouldn't be Valico (clue 1), Barva (clue 3), Sell (clue 4), or Willis (clue 9), it would be Tri. Lytton's recipe wouldn't be on 42 (clue 1), 14 (clue 5) or 23 (clue 13), so it would be on 58. The Valico employee's recipe wouldn't be on 42 or 58 (clue 1) or 14 (clue 6); it would be on 23. By clue 1, the shrimp recipe would be on 14, and by clue 6, it would be Ingram's. Since Maria's recipe wouldn't be on 42 or 58 (clue 2) or 14 (clue 6), it would be on 23. By clue 2, O'Neill's recipe would be on 42. By elimination, Carson's would be on 23. The chicken recipe wouldn't be on 23 (clue 2). By clue 7, then, it would be on 42 and the Sell employee's recipe on 58. The cake recipe wouldn't be on 58 (clue 4), so it would be on 23 and the soup recipe on 58. Since Lytton wouldn't be Patrick (clue 3) or Stan (clue 5), Lytton would be Juanita. This, however, contradicts clue 11. Therefore, the recipe on 65 isn't Greg's; it is Juanita's. Lytton isn't Greg (clue 1), Stan (clue 5), or Juanita (clue 11), so Lytton is either Maria or Patrick. If Lytton were Patrick, he wouldn't work for Valico (clue 1), Barva (clue 3), or Tri (clue 11); he would work for Sell or Willis. Since his recipe wouldn't be for shrimp (clue 1), soup (clue 3), or potatoes (clue 10), it would be for cake or chicken. The Sell employee's recipe wouldn't be for cake (clue 4) or chicken (clue 7), so Lytton wouldn't work for Sell. Lytton, then, would work for Willis. Since Lytton's recipe wouldn't be on 42 (clue 1), 14 (clue 5), or 58 (clue 9), it would be on 23. By clue 5, Stan's recipe would be on 14. Greg's wouldn't be on 42 (clue 1); Greg's would be on 58 and Maria's on 42. The Valico employee's recipe wouldn't be on 23, 42, or 58 (clue 1) or 14 (clue 6), so it would be on 65. Since Maria wouldn't be O'Neill (clue 2), Ingram (clue 6), or Fields (clue 9), she would be Carson. The recipes on 58 and 65 would be O'Neill's (clue 2) and Fields's (clue 9), in some order. By clue 12, Greg wouldn't be O'Neill; he would be Fields. By clue 7, the Sell employee's recipe wouldn't have been on 14 or 42, so it would have been on 58. However, this contradicts clue 4. Therefore, Lytton isn't Patrick; she is Maria. Since her recipe isn't on 42 (clue 1) or 14 (clue 5), it's on either 23 or 58. If it were on 58, by clue 2, O'Neill would be Juanita. The soup recipe would be on 23 and Fields's on 42 (clue 9). Greg's wouldn't be on 42 (clue 1) or 23 (clue 12), so it would be on 14. However, this contradicts clue 13. Therefore, Lytton's recipe isn't on 58; it's on 23. By clue 5, Stan's recipe is on 14. Since Greg's isn't on 42 (clue 1), it's on 58 and Patrick's is on 42. The Valico employee isn't Stan (clue 6). By clue 1, then, she is Juanita and Stan's recipe is for shrimp. Maria's recipe isn't for chicken (clue 2). By clue 7, the chicken recipe is on 42 and the Sell employee's on 58. Neither Maria nor Stan works for Tri (clue 11), so Patrick does. The soup recipe isn't Juanita's (clue 9) or Greg's (clue 12); it is Maria's. By clue 8, since Greg's recipe isn't for cake, it's for potatoes. By elimination, Juanita's is for cake. Fields isn't Greg or Juanita (clue 4). By clue 9, then, he is Patrick and Stan works at Willis. By elimination, Maria works at Barva. O'Neill isn't Stan (clue 2) or Greg (clue 12), so she is Juanita. By clue 7, Greg isn't Carson; he is Ingram, while Stan is Carson. In summary:

Greg Ingram, Sell Express, Snappy Potatoes, 58
Juanita O'Neill, Valico, Dream Cake, 65
Maria Lytton, Barva, Garden Soup, 23
Patrick Fields, Tri Pro, Bliss Chicken, 42
Stan Carson, Willis & Welter, Shrimp Twists, 14

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LOGIC PROBLEM 15

There were seven of each placement number given, so the ten applicants' total was 7 x 1 + 7 x 2 + 7 x 3 + 7 x 4 + 7 x 5 + 7 x 6 + 7 x 7 + 7 x 8 + 7 x 9 + 7 x 10, which equals 385. By clue 1, no two totals were the same and no one received two identical placement numbers. Seven received 1s, then, seven received 2s, etc. Two of the five hirees had both a 1 and a 10, but the other three hirees didn't (clue 4); all of the nonhirees, then, had both a 1 and a 10. The lowest possible score for a hiree is 1 + 2 + 3 + 4 + 5 + 6 + 10, which equals 31, and the lowest possible score for a hiree without both the 1 and 10 is 2 + 3 + 4 + 5 + 6 + 7 + 8, which equals 35. The highest possible score for a nonhiree is 1 + 5 + 6 + 7 + 8 + 9 + 10, which equals 46. By clue 8, the lowest total was 31 and the highest was 46. The one applicant who had sequential placement numbers (clue 2) wasn't a nonhiree or one of the hirees with both a 1 and a 10. There are two possible sequential scores, 2 + 3 + 4 + 5 + 6 + 7 + 8, which equals 35, and 3 + 4 + 5 + 6 + 7 + 8 + 9, which equals 42. If the applicant with sequential placement numbers received 42, at best he or she would receive the sixth lowest score, which falls in the nonhiree range. Therefore, that applicant didn't receive 42; he or she got 35. By clue 2, Angie scored 31, Mr. Farmer had the second lowest score — 32, 33, or 34 — and was the other hiree with a 1 and a 10, and 35 was the third lowest score. The scores of 31 and 46 both have six sequential placement numbers. The third score with six sequential placement numbers (clue 9) is either 36 (2 + 3 + 4 + 5 + 6 + 7 + 9) or 41 (2 + 4 + 5 + 6 + 7 + 8 + 9). Since the person who scored 41 would be a nonhiree and would have had a 1 and a 10, the third score with six sequential placement numbers is not 41; it is 36, the fourth lowest score. Since Ms. Baker did not have the second lowest score, she had the eighth lowest score and Dirk the ninth (clue 9). By clue 8, the fifth lowest scoring applicant is a man, the sixth is a woman, and the tenth is a man. Jason Ingram, then, had the fifth lowest score and Frank the tenth (clue 11). By clue 7, Ms. Hall had the fourth lowest score, Ms. Epson the sixth, and Irene the eighth. Barbara is Epson, Ms. Grayson had the seventh lowest score, and Irene was the only applicant to receive neither a 4 nor a 5 (clue 5). By clue 6, Clyde is either the second or the third lowest scorer and Dirk is Jamison. By elimination, George is also either the second or third lowest scorer. George, then, is Farmer and scored 32, while Adams scored 35 (clue 10). By elimination, Clyde is Adams. By clue 6, Dirk scored 45. Angie is Collins, while Edna is Hall and scored 36 (clue 3). By elimination, Frank is Dawson and Hannah is Grayson. By clue 3, someone scored 41 and by clue 10, someone scored 38, so the total of the other two remaining scores was 385 – 31 – 32 – 35 – 36 – 38 – 41 – 45 – 46, which equals 81. The two remaining scores, then, were either 37 and 44 or 39 and 42. If they were 39 and 42, Irene's total would be 42. However, there is no possible total of placement numbers including a 1 and a 10 and no 4 or 5 that equals 42. Therefore, the two remaining scores weren't 39 and 42; they were 37 and 44. Jason, then, got 37, Barbara 38, Hannah 41, and Irene 44. In summary, in order of scores:

Angie Collins, 31
George Farmer, 32
Clyde Adams, 35
Edna Hall, 36
Jason Ingram, 37
Barbara Epson, 38
Hannah Grayson, 41
Irene Baker, 44
Dirk Jamison, 45
Frank Dawson, 46

THESE ARE THE DAYS

By clue 2, calculus is on Friday. Thursday's class isn't art (clue 1) or biology or French (clue 4), so it is chemistry. By clue 1, art is on the day before French, and by clue 3, biology isn't on Wednesday. Biology, then, is on Monday, art is on Tuesday, and French is on Wednesday. In summary, from Monday through Friday, Monica's schedule is biology, art, French, chemistry, and calculus.

CRYPTIC MATH

By clue 1, L is the smallest number in one diagonal of consecutive numbers and the largest in the other. L, then, is 3, 4, 5, 6, or 7. Since L is evenly divisible by a number other than 1 (clue 4), L is either 4 or 6. N is even (clue 2) and P is odd (clue 3), so O is odd (clue 6). By clue 4, then, L is 6 and O is 3. P is either 5 or 7. It is 5 and N is 8 (clue 6). By elimination, H is 4 and J is 7. By clue 2, K is 2. Since M is 9 (clue 5), I is 1. In summary: H = 4, I = 1, J = 7, K = 2, L = 6, M = 9, N = 8, O = 3, and P = 5.

P.D.Q.

1. $125; 2. 14; 3. 25 feet; 4. 874.

IN THE BALANCE

Two triangles. Scale 1's two triangles equal one circle, and scale 2's four squares equal one circle, so two triangles equal four squares. One triangle, then, equals two squares. Since scale 3's two squares equal one star, one triangle equals one star. Two stars, then, equal two triangles, which balance scale 4.

MATHEMATICAL DEDUCTION

1. 12 (the right number times the difference between the left number and the bottom number); 2. 25 (the largest number divided by the smallest number plus the other number); 3. 0 (the largest number minus the sum of the smallest numbers); 4. 36 (the odd number times the sum of the even numbers); 5. 61 (the smallest number times the next clockwise number minus the next clockwise number).

FAMILY STYLE

First cousins. Since Mary, Julian, and his brother are all children, none is married. Julian's brother's uncle, then, is also Julian's uncle, and the daughter of one's uncle is a first cousin.

TOTALLY!

The second row, the seventh row, and the fifth column each add up to 27. Their letters — U, R, A, A, S, T, L, I, and A — can be anagrammed to form AUSTRALIA.

ALL IN A ROW

Row C. There are 8 groups in row A: 4443, 177, 762, 294, 43161, 618, 555, and 591. There are 6 groups in row B: 663, 825, 2511114, 1149, 33441, and 4182. There are 9 groups in row C: 87, 753, 96, 663, 63123, 12345, 6522, 522222, and 22222221.

CRAZY CALCULATOR

716	9485	382	6
43	2376	75	914) 5507
259	7109	1910	5584
1018		2674	23
		28650	

WHAT'S YOUR NUMBER?

Our number is 5, so your number is 4.

ADD IT UP!

The scissors represent 5, the plane 6, and the phone 7.

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WORD ARITHMETIC

0 1 2 3 4 5 6 7 8 9

1. I/GET/AROUND
2. LEFT/UNSAID
3. BOWLER/HATS
4. FAIRLY/CUTE
5. KIND/OF/LAZY
6. DYNAMIC/SET
7. TAILOR/HEMS
8. CUSTOMIZED
9. AFTERSHOCK
10. OLD/MINTAGE
11. GLUCONATES
    (acidic salts)
12. MODEL/TRAIN
13. WISE/PATRON
14. NEW/POLKA/C.D.
15. BRINY/DEPTH
16. HOW/IT/FARED
17. PROSCENIUM
18. SUPERB/MIND
19. YOUR/SKETCH
20. WHITE/PANSY
21. JOIN/UP/LAST
22. MEDAL/TO/WIN
23. PENCIL/STUB
24. RESTFUL/DAY
25. NEW/FLORIST
26. MALE/CHORUS
27. FISHMONGER
28. UNIMPROVED
29. LACY/FRINGE
30. WET/LAUNDRY
31. WORN/JACKET
32. NIMBLE/DOGS
33. METHODICAL
34. PACHYDERMS
35. HIS/BOLD/CAT
36. CHANGE/JOBS
37. FUEL/RATION
38. LAKE/NYMPHS
39. CUSTARD/PIE
40. GRAY/WOLVES
41. BLACK/HORSE
42. SECOND/HALF
43. FIVE/CLOWNS
44. WAITS/FOR/ME
45. AMUSE/CROWD
46. SCQAOKMBJF
47. NDHASOIERT
48. AZBYCXDWEV
49. ZYXWVACEGI

CROSSMATH HELP

6-Down is 92 ÷ 4.

KROSS NUMBER HELPS

#1: 810320 #2: 8222577

CROSS SUMS HELPS

1: 6713	6: 235416	11: 314	16: 37541
2: 9268	7: 8597	12: 1532	17: 1473
3: 7986	8: 3921	13: 8742	18: 93874
4: 968	9: 8957	14: 68397	19: 4623
5: 923165	10: 421	15: 3712	20: 8431

FIGURE LOGIC HELPS

1. 8-Across is greater than 10 but less than 20 (clue 28-Down). By clue 8-Across, then, 8-Across is 12 and 4-Down is 11.
2. 7-Across is 70, 77, 84, 91, or 98 (clue 7-Across). By clue 2-Down, then, 7-Across is 84 and 2-Down is 14.
3. By clue 6-Across, 6-Across's first digit is 1. By clue 29-Across, 18-Across's first digit is 1, 2, or 3, so 7-Down's first digit is 1 (clue 7-Down). By clue 6-Across, then, 6-Across is 114 and 2-Down is 912.
4. 25-Across's first digit is 1 (clue 25-Across). By clue 2-Across, then, 22-Down is 91 and 2-Across is 13.
5. By clue 24-Across, 24-Across's first digit is 9.
6. By clue 25-Down, 25-Down's first digit is 1, 2, or 3. Since 4-Down is even (clue 3-Down), 23-Across is even (clue 4-Down); 23-Across's last digit is 2.
7. By clue 4-Down, 4-Down's first digit is 1.
8. By clue 6-Across, 6-Across's first digit is 1, 2, or 3.
9. Q is 5.
10. 17-Down is six times 11-Across, so 11-Across's first digit is 1.

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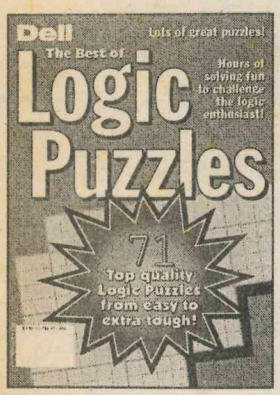
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